Resume

Domains of Expertise		**Environmental Science / Environmental Engineering / Water Treatment**			
Name in Full		**Chicgoua, Dr. Noubactep (Privatdozent)**			
Academic title		**Full Professor**			
Country of Citizenship		**Germany**			
Birth date		**1968-05-20**			
Gender		**Male**			
Official Date of Ph.D.		**2002-12-06**			
Official Date of Habilitation		**2011-02-16**			
Mailing Address	**Office**	**Goldschmidtstrasse 3; D - 37077 Göttingen**			
	Home	**Mahneberg 25; D - 37130 Gleichen**			
Phone		**Office**	**+49 (0) 551 39 3 3191**	**Mobile**	**+49 (0) 1579 2321761**
Fax		**Office**	**+49 (0) 551 39 9379**	**Home**	**none**
E-mail Address		cnoubac@gwdg.de, cnoubac@gmail.com			

■ Education

Dates		**Colleges and Universities**	**Department**	**Specialized Field**	**Degree**
From	**To**				
2005-07-01	2011-02-16	University of Göttingen (Germany)	Applied Geology	Safe drinking Water	Habilitation
2010-07-01	2010-12-31	University of Kassel (Germany)	Gesellschaft für Nachhaltige Entwicklung, Witzenhausen	Renewable Energy	Coordinator for Renewable Energy
1997-10-01	2002-12-06	University of Freiberg (Germany)	Applied Geology	Groundwater remediation	PhD
1995-10-01	1997-09-30	Technical University of Dresden	Institute of Water Chemistry	Activated carbon for safe drinking water	Further education
1995-04-01	1995-09-30	Goethe-Institut Bremen	Language and Culture	German Language	PNdS
1993-01-01	1995-03-31	University of Yaoundé (Cameroon)	Inorganic Chemistry	Water treatment	Diplôme d'études approfondies (DEA in Physical Chemistry)
1991-10-01	1992-12-23	University of Yaoundé (Cameroon)	Inorganic Chemistry	Water treatment	MSc

1988-10-01	1991-06-30	University of Yaoundé (Cameroon)	Chemistry	Inorganic Chemistry	BSc

■ **Experience**

Dates		Institution and Address	Position
From	**To**		
2011-02-16	current	Applied Geology Goldschmidtstrasse 3 D - 37077 Göttingen (Germany)	Privatdozent
2019.04.02	2021.12.31	Hohai University Nanjing (China)	Appointed Visiting Professor
2021.03.22	2021.05.03	The Pan African University Institute of Water and Energy Sciences (including Climate Change)	Part-time Lecturer (Water Quality and Sanitation 2: Networks versus Decentralized Solutions)
2019.07.01	current	Univesrité des Montagnes Bangangté / Cameroon	Visiting Professor (CIM/GIZ) (Water Quality/Treatment/ Academic Writing)
2017.03.30	current	The Nelson Mandela African Institution of Science and Technology, Arusha/Tanzania	Visiting Professor (BMBF) (Water Quality/Treatment/ Academic Writing)
2019.01.22	2019.01.31	The Pan African University Institute of Water and Energy Sciences (including Climate Change)	Part-time Lecturer (Water Quality and Sanitation 2: Networks versus Decentralized Solutions)
2018.11.01	2018.11.12	Hohai University Nanjing (China)	Visiting Professor (Invited)
2018.07.03	2018.08.03	Univesrité des Montagnes Bangangté / Cameroon	Visiting Professor (DAAD) (Water Quality/Treatment/ Academic Writing)
2018.03.05	2018.04.06	The Nelson Mandela African Institution of Science and Technology, Arusha/Tanzania	Visiting Professor (DAAD) (Water Quality/Treatment/ Academic Writing)
2017.03.26	2017.04.27	The Nelson Mandela African Institution of Science and Technology, Arusha/Tanzania	Visiting Professor (DAAD) (Water Quality/Treatment/ Academic Writing)
2017.02.05	2017.02.24	The Pan African University Institute of Water and Energy Sciences (including Climate Change)	Part-time Lecturer (Academic Writing)
2016.04.01	2016.05.06	University of Douala, Faculty of Sciences, Department of Chemistry, B.P. 24157 Douala, Cameroon	Visiting Professor (DAAD) (Water Quality/Treatment)
2016.02.08	2016.02.24	The Pan African University Institute of Water and Energy Sciences (including Climate Change) (PAUWES) at the University of Tlemcen in Algeria	Part-time Lecturer (Water Quality)
2007-07-01	2011-02-15	Applied Geology Goldschmidtstrasse 3 D - 37077 Goettingen (Germany)	Senior Researcher
2003-01-01	2005-06-30	Applied Geology Goldschmidtstrasse 3 D - 37077 Goettingen (Germany)	Post-Doc
2002-04-01	2002-12-31	Applied Geology Burgweg 11 D - 07749 Jena	Post-Doc

■ Honors and Awards

Recognition Details	Dates
Adjunct Professor at the Nelson Mandela African Institution of Science and Technology (NM-AIST), Arusha P.O. Box 447, Tanzania	2019-12-20 to 2022-12-20
DFG grant for advanced researchers (Third party funded research projects)	2005-07-01 to 2009-03-31
DFG Scholarship (Graduiertenkolleg "GRK 272")	1998-03-01 to 2001-05-31
DAAD Scholarship	1995-04-01 to 1997-30-09

■ Scientific cooperation (international – selected)

Prof. Antoine Ghauch, American University of Beirut, Department of Chemistry, P.O. BOX 11-0236, Beirut 1107 2020 Lebanon.
Prof. Willis Gwenzi, Department of Soil Science and Agricultural Engineering, Faculty of Agriculture, University of Zimbabwe, P.O. Box MP167, Mount Pleasant, Harare, Zimbabwe.
Prof. Rui Hu, School of Earth Science and Engineering, Hohai University, Fo Cheng Xi Road 8, Nanjing 211100, China.
Prof. Karoli Njau: The Nelson Mandela African Institution of Science and Technology, Kijenge, Arusha, Tanzania.

■ List of References

Prof. Dr. Kerstin Wydra (lgf-dekanat@fh-erfurt.de)
Plant Production and Climate Change - Fachhochschule Erfurt
Leipziger Straße 77, 99085 Erfurt
Phone: +49 (0) 361 6700-269 / Fax: +49 (0) 361 6700-259

Prof. Frank Winde (Frank.Winde@nwu.ac.za)
Head of Mine Water Research Group, Chair of Geography - School for Basic Sciences
Vaal Triangle Campus - North-West University, Vanderbiljpark, Republic of South Africa
Tel.: 0027 18 2970188 / Fax to email: 0866 23 5381

Prof. Pavel Bedrikovetsky (pavel.russia@gmail.com, pavel@asp.adelaide.edu.au)
Chair in Petroleum Engineering, Australian School of Petroleum
University of Adelaide
Tel: +61 8 83033082

■ Additional Information

- Habilitation Dissertation:
Noubactep C. (2011): Metallic iron for safe drinking water production. Habilitation thesis, University of Göttingen, Wiss. Mitt. Institut für Geologie der TU Bergakademie Freiberg, Band 43, 140 pp, ISSN1433-1284.
Noubactep C. (2011): Metallic iron for safe drinking water production. Freiberg Online Geosci. 27, 39 pp, ISSN 1434-7512. (www.geo.tu-freiberg.de/fog).

- Ph.D. Dissertation:
Noubactep C. (2003): Investigations for the passive in-situ Immobilization of Uranium (VI) from Water (in German). Dissertation, TU Bergakademie Freiberg, Wiss. Mitt. Institut für Geologie der TU Bergakademie Freiberg, Band 21, 140 pp, ISSN1433-1284.

- Master Thesis:
Noubactep C. (1992): Comparative studies of methylene blue adsorption by activated carbon: elaboration of a simple method for the comparison of activated carbon (in French). Master thesis, University of Yaoundé (Cameroon). 40 pp.

■ Main focus of work and research

Associate Professor:

- Development of a lecture on decentralized safe drinking water provision.
- Development of a lecture on Academic Writing.
- Teaching Water Chemistry and Water Treatment.
- Supervision of PhD and Master thesis.
- Evaluating Research grants and dissertations.
- Guest-editing journals.
- Member of the Editorial Board of Sustainability (MPDI; Basel/Switzerland)
- Member of the Editorial Board of Water (MPDI; Basel/Switzerland)
- Member of the Editorial Board of Frontiers in Environmental Chemistry - Sorption Technologies (Frontiers Media S.A. London / United Kingdom)
- Participating to Summer Schools / Organizing Short Courses.
- Part-time Lecturer at the Panafrican University of Telcem (Algeria).
- Visiting Professor (DAAD) at several universities in Cameroon and Tanzania.
- Visiting Professor at The Hohai University in Nanjing – China.
- Appointed Visiting Professor at The Hohai University in Nanjing – China.
- Establishing the science of iron filters.
- Development of the Kilimanjaro Concept for fluoride-free drinking water in the East African Rift Valley.
- Generalization of the Kilimanjaro Concept for integrated water resources management.

Senior Scientist:

- Build up the sub-working group "Inorganic Contamination" in the Hydrochemistry Group (Department of Applied Geology, University of Göttingen/Germany).
- Development of an internationally recognized concept for affordable drinking water provision.
- Elucidation and validation of the mechanisms of aqueous contaminant removal by metallic iron.
- Development of two methods to test the suitability of metallic iron for water treatment.
- Supervision of PhD, graduate and undergraduate students.
- Publication of research results in well reputed international journals.

Post Doctoral Researcher:

- Development of new investigation methods for leaching characterization of contamination from natural materials (rocks and sediments).
- Development of a new investigation method for characterization the suitability of metallic iron materials for water treatment.
- Supervision of PhD, graduate and undergraduate students.
- Publication of research results in well reputed international journals.

Research Assistant (PhD candidate)

- Successful testing of scrap iron as cost-effective alternative to commercial materials.
- Supervising undergraduates and developing experiments in teaching laboratories; supervising final-year project students.
- Presentation of research results on national and international conferences and publication of research results in well reputed international journals.

Publication List

Notice:

- ✓ Publications are listed in counter-chronological order.
- ✓ Number is the total number of authors (including myself).
- ✓ Type of author: Classify among FA (first author), CA (corresponding author), and co-author
- ✓ Journal: Refer to standard '2019 JCR'(ISI Journal Citation Report Science Edition)
- ✓ Citation Counts: Is the cited times from SCOPUS[tm] excluding self-citation counts (**145** cited documents - per 10.03.2021).
  - ✓ Citations: **2300** (with self-citations 3996)
  - ✓ h-index: 25 (with self-citations 36)
  - ✓ Google Scholar Citations (**201** cited documents - per 10.03.2021).
  - ✓ Citations: 5945
  - ✓ h-index: 43
  - ✓ h10-index: 111
  - ✓ Researchgate Citations (**214** cited documents - per 10.03.2021).
  - ✓ Citations: 4513
  - ✓ h-index: 24 (with self-citations 38)
  - ✓ Score 93 %; 214 publications; 56,769 reads; 4,513 citations; RG Score: 42.64.
- ✓ (*) Articles recommended at the "online collection of articles from reputable trade magazines and journals" www.highbeam.com (30 articles) and Atlas of Science (3 articles) (2016-11-23).
- ✓ (**) Articles ever listed on the "top 50" for "environmental remediation" at **http://www.recentmedicalfindings.com/g0n3/environmental-remediation-5.html**.
- ✓ (***) Most cited articles from CLEAN 2014.
- ✓ (°) Selected for the Virtual Issue "Environmental Remediation" at CLEAN (June 2016).
- ✓ URL: https://www.uni-goettingen.de/de/8679.html
- ✓ Further research URL: https://www.uni-goettingen.de/de/8679.html, **http://www.scititles.com/researcher-info/14926**, **http://65.54.113.26/Author/21702325/chicgoua-noubactep**, **http://pubget.com/author/chicgoua-noubactep**, **http://www.wiley-vch.de/vch/journals/2047/2047_mostaccessed.html**, **http://scholar.google.com/citations?user=l7x7XQ4AAAAJ&hl=en**.
- ✓ Private home page: http://www.dr-cn.de/

Papers in international journal (ORCID: 0000-0002-3277-5148)

No	Details (title, authors, journal name, volume, pages, and publication date)	Author		Journal		Citation Counts
		Number	Type	IF	Ranking	

1	Konadu-Amoah B., Ndé-Tchoupé A.I., Hu R., Gwenzi W., Noubactep C. (2021): Investigating the Fe^0/H_2O systems using the methylene blue method: Validity, applications and future directions. Chemosphere xxx, 132913.	**5**	**CA**	**7.086**		
2	Nya E.L., Feumba R., Fotsing-Kwetché P.R., Gwenzi W., Noubactep C. (2021): A hybrid model for achieving universal safe drinking water in the medium-sized city of Bangangté (Cameroon). Water 13, 3177.	**5**	**CA**	**3.103**		
3	Hu R., Ndé-Tchoupé A.I., Cao V., Gwenzi W., Noubactep C. (2021): Metallic iron for environmental remediation: The fallacy of the electron efficiency concept. Front. Environ. Chem. 2, 677813.	**5**	**CA**			
4	Noubactep C. (2022): Should the term 'metallic iron' appear in the title of a research paper? Chemosphere 287, 132314.	**1**	**CA**	**7.086**		
5	Huang Z., Nya E.L., Cao V., Gwenzi W., Rahman M.A., Noubactep C. (2021): Universal access to safe drinking water: Escaping the traps of non-frugal technologies. Sustainability 13, 9645.	**6**	**CA**	**3.251**		
6	Yang H., Hu R., Ruppert H., Noubactep C. (2021): Modeling porosity loss in Fe^0-based permeable reactive barriers with Faraday's law. Sci. Rep. 11, 16998.	**4**	**Co-author**	**4.379**		
7	Pembe-Ali Z., Mwamila T.B., Lufingo M., Gwenzi W., Marwa J., Rwiza M.J., Lugodisha I., Qi Q., Noubactep C. (2021): Application of the Kilimanjaro Concept in Reversing Seawater Intrusion and Securing Water Supply in Zanzibar, Tanzania. Water 13, 2085.	**9**	**CA**	**3.103**		
8	Huang Z., Nya E.L., Rahman M.A., Mwamila T.B., Cao V., Gwenzi W., Noubactep C. (2021): Integrated water resource management: Rethinking the contribution of rainwater harvesting. Sustainability 13, 8338.	**7**	**CA**	**3.251**		

9	Cao V., Alyoussef G., Gatcha-Bandjun N., Gwenzi W., Noubactep C. (2021): The key role of contact time in elucidating the mechanism of enhanced decontamination by Fe^0/MnO_2/sand systems. Sci. Rep. 11, 12069.	**5**	**CA**	**4.379**		
10	Noubactep C. (2021): Editorial for the Special Issue: Planning, Designing and Managing Decentralized Drinking Water Supply Systems. Processes 9, 930.	**1**	**CA**	**2.847**		
11	Cao V., Alyoussef G., Gatcha-Bandjun N., Gwenzi W., Noubactep C. (2021): Characterizing the impact of MnO_2 addition on the efficiency of Fe^0/H_2O systems. Sci. Rep. 11, 9814.	**5**	**CA**	**4.379**		
12	Cao V., Ndé-Tchoupé A.I., Hu R., Gwenzi W., Noubactep C. (2021): Discussing the mechanism of contaminant removal in Fe^0/H_2O systems: The burden of a poor literature review. Chemosphere 280, 130614.	**5**	**CA**	**7.086**		
13	Noubactep C. (2021): Metallic iron for the removal of metals and metalloids from aqueous solutions: An old timer view. Curr. Opin. Environ. Sci. Health 22, 100256.	**1**	**CA**			
14	Cao V., Alyoussef G., Gatcha-Bandjun N., Gwenzi W., Noubactep C. (2021): The suitability of methylene blue discoloration (MB method) to investigate the Fe^0/MnO_2 system. Processes 9, 548.	**5**	**CA**	**2.847**		
15	Huang Z., Cao V., Nya E.L., Gwenzi W., Noubactep C. (2021): Kanchan arsenic filters and the future of Fe^0-based filtration systems for single household drinking water supply. Processes 9, 58.	**5**	**CA**	**2.847**		
16	Hu R., Cui X., Xiao M., Gwenzi W., Noubactep C. (2021): Characterizing the impact of pyrite addition on the efficiency of Fe^0/H_2O systems. Sci. Rep. 11, 2326.	**5**	**CA**	**4.379**		
17	Xiao M., Cui X., Hu R., Gwenzi W., Noubactep C. (2020): Validating the efficiency of the FeS_2 methd for elucidating the mechanisms of contaminant removal using Fe^0/H_2O systems. Processes 8, 1162.	**5**	**CA**	**2.847**		

18	Touomo-Wouafo M., Donkeng-Dazie J., Jirka I., Btatkeu-K B.D., Tchatchueng J.B., Noubactep C., Ludvík J. (2020): Electrochemical monitoring of heavy metals removal from aqueous solutions by aged metallic iron. Competitive effects of cations Zn^{2+}, Pb^{2+} and Cd^{2+}. Monatsh. Chem. 151, 1511–1523.	**7**	**Co-author**	**1.451**		
19	Cao V., Yang H., Ndé-Tchoupé A.I., Hu R., Gwenzi W., Noubactep C. (2020): Tracing the scientific history of Fe^0-based environmental remediation prior to the advent of permeable reactive barriers. Processes 8, 977.	**6**	**CA**	**2.847**		
20	Yang H., Hu R., Ndé-Tchoupé A.I., Gwenzi W., Ruppert H., Noubactep C. (2020): Designing the next generation of Fe^0-based filters for decentralized safe drinking water treatment. Processes 8, 745.	**6**	**CA**	**2.847**		
21	Ndé-Tchoupé A.I., Hu R., Gwenzi W., Nassi A., Noubactep C. (2020): Characterizing the reactivity of metallic iron for water treatment: H_2 evolution in H_2SO_4 and uranium removal efficiency. Water 12, 1523.	**5**	**CA**	**3.103**		
22	Xiao M., Hu R., Cui X., Gwenzi W., Noubactep C. (2020): Understanding the operating mode of Fe^0/Fe-sulfide/H_2O systems for water treatment. Processes 8, 409.	**5**	**CA**	**2.847**		
23	Hu R., Yang H., Tao R., Cui X., Xiao M., Konadu-Amoah B., Cao V., Lufingo M., Soppa-Sangue N.P., Ndé-Tchoupé A.I., Gatcha-Bandjun N., Sipowo-Tala V.R., Gwenzi W., Noubactep C. (2020): Metallic iron for environmental remediation: Starting an overdue progress in knowledge. Water 12, 641.	**14**	**CA**	**3.103**		
24	Hildebrant B., Ndé-Tchoupé A.I., Lufingo M., Licha T., Noubactep C. (2020): Steel wool for water treatment: Intrinsic reactivity and defluoridation efficiency. Processes 8, 265.	**5**	**CA**	**2.847**		
25	Tepong-Tsindé R., Nde-Tchoupe A.I., Noubactep C., Nassi A., Ruppert H. (2019): Characterizing a newly designed steel-wool-based household filter for safe drinking water provision: Hydraulic conductivity and efficiency for pathogen removal. Processes 7, 966.	**5**	**CA**	**2.847**		

26	Lufingo M., Ndé-Tchoupé A.I., Hu R., Njau K.N., Noubactep C. (2019): A novel and facile method to characterize the suitability of metallic iron for water treatment. Water 11, 2465.	**5**	**CA**	**3.103**		
27	Hu R., Noubactep C. (2019): Redirecting research on Fe^0 for environmental remediation: The search for synergy. Int. J. Environ. Res. Public Health 16, 4465.	**2**	**CA**	**3.390**		
28	Qi Q., Marwa J., Mwamila T.B., Gwenzi W., Noubactep C. (2019): Making rainwater harvesting a key solution for water management: The universality of the Kilimanjaro Concept. Sustainability 11, 5606.	**5**	**CA**	**3.251**		
29	Hu R., Cui X., Xiao M., Qiu P., Lufingo M., Gwenzi W., Noubactep C. (2019): Characterizing the suitability of granular Fe^0 for the water treatment industry. Processes 7, 652.	**7**	**CA**	**2.847**		
30	Noubactep C. (2019): The operating mode of Fe^0/H_2O systems: Hidden truth or repeated nonsense? Fresenius Environmental Bulletin 28, 8328–8330.	**1**	**CA**	**0.553**		
31	Ebelle T.C., Makota S., Tepong-Tsindé R., Nassi A., Noubactep C. (2019): Metallic iron and the dialogue of the deaf. Fresenius Environmental Bulletin 28, 8331-8340.	**5**	**CA**	**0.553**		
32	Hu R., Gwenzi G., Sipowo-Tala V.R., Noubactep C. (2019): Water treatment using metallic iron: A tutorial review. Processes 7, 622.	**4**	**CA**	**2.847**		**0**
33	Noubactep C. (2019): Editorial for the Special Issue: Filters in drinking water treatment. Water 11, 522.	**1**	**CA**	**3.103**		**0**
34	Nanseu-Njiki C.P., Gwenzi W., Pengou M., Rahman M.A., Noubactep C. (2019): Fe^0/H_2O filtration systems for decentralized safe drinking water: Where to from here? Water 11, 429.	**5**	**Co-author**	**3.103**		**0**
35	Hu R., Ndé-Tchoupé A.I., Lufingo M., Xiao M., Nassi A., Noubactep C., Njau K.N. (2019): The impact of selected pre-treatment procedures on iron dissolution from metallic iron specimens used in water treatment. Sustainability 11, 671.	**7**	**CA**	**3.251**		**0**

36	Ndé-Tchoupé A.I., Tepong-Tsindé R., Lufingo M., Pembe-Ali Z., Lugodisha I., Mureth R.I., Nkinda M., Marwa J., Gwenzi W., Mwamila T.B., Rahman M.A., Noubactep C., Njau K.N. (2019): White teeth and healthy skeletons for all: The path to universal fluoride-free drinking water in Tanzania. Water 11, 131.	**13**	**Co-author**	**3.103**		**0**
37	Ndé-Tchoupé A.I., Nanseu-Njiki C.P., Hu R., Nassi A., Noubactep C., Licha T. (2019): Characterizing the reactivity of metallic iron for water defluoridation in batch studies. Chemosphere 219, 855–863.	**6**	**CA**	**7.086**		**0**
38	Hu R., Cui X., Gwenzi W., Wu S., Noubactep C. (2018): Fe^0/H_2O systems for environmental remediation: The scientific history and future research directions. Water 10, 1739.	**4**	**CA**	**3.103**		**0**
39	Marwa J., Lufingo M., Noubactep C., Machunda R. (2018): Defeating fluorisis in the East African Rift Valley: Transforming the Kilimanjaro into a rain water harvesting park. Sustainability 10, 4194.	**4**	**CA**	**3.251**		**0**
40	Hu R., Noubactep C. (2018): Iron corrosion: Scientific heritage in jeopardy. Sustainability 10, 4138.	**2**	**CA**	**3.251**		**0**
41	Heimann S., Ndé-Tchoupé A.I., Hu R., Licha T., Noubactep C. (2018): Investigating the suitability of Fe^0 packed-beds for water defluoridation. Chemosphere 209, 578–587.	**5**	**CA**	**7.086**		**0**
42	Touomo-Wouafo M., Donkeng-Dazie J., Btatkeu-K B.D., Tchatchueng J.B., Noubactep C., Ludvík J. (2018): Role of pre-corrosion of Fe^0 on its efficiency in remediation systems: An electrochemical study. Chemosphere 209, 617–622.	**6**	**co-author**	**7.086**		**1**
43	Ndé-Tchoupé A.I., Lufingo M., Hu R., Gwenzi W., Ntwampe S.K.O., Noubactep C., Njau K.N. (2018): Avoiding the use of exhausted drinking water filters: a filter-clock based on rusting iron. Water 10, 591.	**7**	**CA**	**3.103**		**0**
44	Ndé-Tchoupé A.I, Makota S., Nassi A., Hu R., Noubactep C. (2018): The Suitability of Pozzolan as Admixing Aggregate for Fe^0-Based Filters. Water 10, 417.	**5**	**CA**	**3.103**		**2**
45	Noubactep C. (2018): Metallic iron for environmental remediation: How experts maintain a comfortable status quo. Fresenius Environmental Bulletin 27, 1379− 1393.	**1**	**CA**	**0.553**	**Environmental sciences (164/193)**	**0**

46	Naseri E., Nde-Tchoupe I.A., Mwakabona H.T., Nanseu-Njiki C.P., Noubactep C., Njau K.N., Wydra K.D. (2017): Making Fe^0-based filters a universal solution for safe drinking water provision. Sustainability 9, 1224.	**7**	**CA**	**3.251**		**3**
45	Makota S., Nde-Tchoupe I.A., Mwakabona H.T., Tepong-Tsindé R., Noubactep C., Nassi A., Njau K.N. (2017): Metallic iron for water treatment: Leaving the valley of confusion. Applied Water Science 7, 4177–4196.	**7**	**CA**	**3.874**		**0**
48	Gatcha-Bandjun N., Noubactep C., Loura Mbenguela B. (2017): Mitigation of contamination in effluents by metallic iron: The role of iron corrosion products. Environmental Technology & Innovation 8, 71–83.	**3**	**CA**	**5.263**		**2**
49	Gwenzi W., Chaukura N., Noubactep C., Mukome F.N.D. (2017): Biochar-based water treatment systems as a potential low-cost and sustainable technology for clean water provision. Journal of Environmental Management 197, 732–749.	**4**	**Co-author**	**4.175**	-	**16**
50	Mwakabona H.T., Ndé-Tchoupé A.I., Njau K.N., Noubactep C., Wydra K.D. (2017): Metallic iron for safe drinking water provision: Considering a lost knowledge. Water Research 117, 127–142.	**5**	**CA**	**9.130**	-	**11**
51	Boroomand B., Vafaii F., Bahrololoom M.E., Noubactep C. (2016): Testing willow leaves for the removal of Cu^{2+} from aqueous effluents. Fresenius Environmental Bulletin 25, 4569–4577.	**4**	**Co-author**	**0.553**	**Environmental sciences (164/193)**	**0**
52	Noubactep C. (2016): Predicting the hydraulic conductivity of metallic iron filters: Modeling gone astray. Water 8, 162.	**1**	**CA**	**3.103**		**1**
53	Noubactep C. (2016): Research on metallic iron for environmental remediation: Stopping growing sloppy science. Chemosphere 153, 528–530.	**1**	**CA**	**7.086**		**9** (*) (**)
54	Noubactep C. (2016): Designing metallic iron packed-beds for water treatment: A critical review. CLEAN - Soil, Air, Water 44, 411–421.	**1**	**CA**	**1.603**		**4**
55	Noubactep C. (2016): No scientific debate in the zero-valent iron literature. CLEAN - Soil, Air, Water 44, 330–332.	**1**	**CA**	**1.603**		**3**
56	Phukan M., Noubactep C., Licha T. (2016): Characterizing the ion-selective nature of Fe^0-based filters using three azo dyes in batch systems. Journal of Environmental Chemical Engineering 4, 65–72.	**3**	**CA**	**4.300**		**1**
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74	Kobbe-Dama N., Noubactep C., Tchatchueng J.B. (2013): Metallic iron for water treatment: Prevailing paradigm hinders progress. Fresenius Environmental Bulletin 22, 2953–2957.	**3**	**CA**	**0.553**	**Environmental sciences (164/193)**	**2**
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85	Noubactep C. (2012): Comment on "Reductive dechlorination of γ-hexachloro-cyclohexane using Fe–Pd bimetallic nanoparticles" by Nagpal et al. [J. Hazard. Mater. 175 (2010) 680–687]. Journal of Hazardous Materials 235–236, 388-391.	**1**	**CA**	**10.588**	**Environmental sciences (18/193)**	**1**

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143	Noubactep C. (2009): Comments on "Reductive immobilization of uranium(VI) by amorphous iron sulfide" by Hua & Deng 2008 [Environ. Sci. Technol. 42, 8703 –8708]. Environmental Science & Technology 43, 1236.	**1**	**CA**	**7.864**	**Environmental sciences (9/193)**	**3**
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157	Fall M., Azzam R., Noubactep C. (2006): A multi-method approach to study the stability of natural slopes and landslide susceptibility mapping. Engineering Geology 82, 241–263.	**3**	**co-author**	**4.779**	**Geosciences, multidisciplinary (98/167)**	**50**
158	Noubactep C., Schöner A., Dienemann H., Sauter M. (2006): Investigating the release of co-precipitated uranium from iron oxides. Journal of Radioanalytical and Nuclear Chemistry 267, 21–27.	**4**	**FA,CA**	**1.137**	**Chemistry, Inorganic & Nuclear (34/43)**	**6**
159	Noubactep C. (2006): Effects of selected ligands on U(VI) immobilization by zerovalent iron. Journal of Radioanalytical and Nuclear Chemistry 267, 13–19.	**1**	**CA**	**1.137**	**Chemistry, Inorganic & Nuclear (34/43)**	**5**
160	Noubactep C., Meinrath G., Merkel J.B. (2005): Investigating the mechanism of uranium removal by zerovalent iron materials. Environmental Chemistry 2, 235–242.	**3**	**FA,CA**	**1.910**	**Environmental sciences (78/193)**	**10**
161	Noubactep C., Meinrath G., Dietrich P., Sauter M., Merkel B. (2005): Testing the suitability of zerovalent iron materials for reactive walls. Environmental Chemistry 2 , 71–76.	**5**	**FA,CA**	**1.910**	**Environmental sciences (78/193)**	**16**
162	Noubactep C., Meinrath G., Dietrich P., Merkel B. (2003): Mitigating uranium in ground water: prospects and limitations. Environmental Science & Technology 37, 4304–4308.	**4**	**FA,CA**	**7.864**	**Environmental sciences (9/193)**	**23**

163	Schneider P., Neitzel P.L., Osenbrück K., Noubactep C., Merkel B., Hurst S. (2001): In-situ treatment of radioactive mine waters using reactive materials - results of field experiments in uranium ore mines in Germany. Acta Hydrochimica et Hydrobiologica 29, 129–138.	**6**	**co-author**	**1.580**	**Environmental sciences (101/193)**	**3**
164	Meinrath G., Lis S., Stryla Z., Noubactep C. (2000): Lifetime and fluorescence quantum yield of uranium (VI) species in hydrolysed solutions. Journal of Alloys and Compounds 300-301, 107–112.	**4**	**co-author**	**4.650**	Materials science, multidisciplinary (**50/225)**	**16**
165	Avom J., Ketcha J., Noubactep C., Germain P. (1997): Adsorption of methylene blue from an aqueous solution onto activated carbons from palm-tree cobs. Carbon 35, 365–369.	**4**	**co-author**	**9.594**	Materials science, multidisciplinary (**19/225)**	**87**

Proceedings at international conferences

No	Details (title, authors, name of conference, volume, pages, and presented date, etc.)	Author	
		Number	Type
1	Noubactep C. (2014): Affordable safe drinking water for victims of natural disasters. In Kätsch C., and Meliczek H. (Eds) "Natural Disasters and Sustainable Development", Proceedings of the International Seminar held in Göttingen, Germany 17-19 April 2013, Cuvillier Verlag, Göttingen; ISBN-13: 9783954046683, pp. 57–75.	**1**	**CA**
2	Noubactep C. (2012): Affordable safe drinking water for the poor. In Kätsch C, and Meliczek H. (Eds) "Sustainable land use and the food chain from the producer to the consumer", Proceedings of the International Seminar held in Göttingen, Germany 1 - 3 December 2011, Cuvillier Verlag, Göttingen; ISBN-10: 395404191X, ISBN-13: 9783954041916, pp. 109–117.	**1**	**CA**
3	Schöner A., Noubactep C. (2008): Which factors influence the immobilization of uranium in soils and sediments? In Merkel B.J., Hasche-Berger A. (Eds.) *Uranium in the Environment*. Springer, Berlin, Heidelberg; 527–528.	**2**	**co-author**
4	Noubactep C., Woafo P. (2008): Elemental iron (Fe^0) for better drinking water in rural areas of developing countries. In Merkel B.J., Hasche-Berger A. (Eds.) *Uranium in the Environment*. Springer, Berlin, Heidelberg; 121–130.	**2**	**FA,CA**
5	Noubactep C., Schöner A., Schubert M. (2008): Characterizing As, Cu, Fe and U solubilization by natural waters. In Merkel B.J., Hasche-Berger A. (Eds.) *Uranium in the Environment*. Springer, Berlin, Heidelberg; 549–558.	**3**	**FA,CA**
6	Noubactep C. (2007): Investigating Contaminant Removal in "Fe^0–H_2O" Systems. – Wissenschaftliche Mitteilungen, 35: 43–48, Freiberg (ISSN 1433-128).	**1**	**CA**
7	Noubactep C. (2006): Contaminant reduction at the surface of elemental iron: the end of a myth. – Wissenschaftliche Mitteilungen, 31: 173-179, Freiberg (ISSN 1433-128).	**1**	**CA**
8	Fall M., Azzam R., Noubactep C. (2006): Landslide danger assessment of large-scale natural slopes – a GIS based approach. IAEG2006 Paper number 104 (11 pp).	**3**	**co-author**
9	Noubactep C., Merten D., Heinrichs T., Sonnefeld J., Sauter M. (2005): Characterising uranium solubilization under natural near oxic conditions. In Merkel BJ, Hasche-Berger A. (Eds.) *Uranium in the Environment*. Springer, Berlin, Heidelberg; 425–435.	**5**	**FA,CA**
10	Noubactep C., Fall M., Meinrath G., Merkel B. (2004): A simple method to select zero valent iron material for groundwater remediation. paper presented at the Quebec 2004, 57^{TH} Canadian Geotechnical Conference, 5^{TH} Joint CGS/IAH-CNC Conference, Session 1A, pp. 6-13.	**4**	**FA,CA**
11	Schöner A., Noubactep C., Sauter M. (2004): Assessment of uranium retention in wetlands: Characterisation of bonding strength, considerations to optimise reductive precipitation.- IMWA Symposium - Mine Water 2004 - Process, Policy and	**3**	**co-author**

	Progress, Vol. 2: 19-24 (ISBN 0-9543827-4-9); University of Newcastle upon Tyne, United Kingdom.		
12	Schöner A., Noubactep C., Sauter M. (2003): Constructed wetlands for the removal of uranium from mine waters.- 2nd IMAGE-TRAIN Advanced Study Course „Groundwater Management in Mining Areas“, June 23-27 2003, Pécs, Hungary.	**3**	**co-author**
13	Noubactep C., Meinrath G., Volke P., Dietrich P., Merkel B. J. (2002): Mechanisms of uranium fixation by zero valent iron: The importance of co-precipitation. In: Merkel BJ, Planer-Friedrich B., Wolkersdorfer C (Eds.) *Uranium in the Aquatic Environment*. Springer, Berlin, Heidelberg. 577–586.	**5**	**FA,CA**
14	Noubactep C., Volke P., Merkel B., Meinrath G. (2001): Mitigation of uranium in effluents by zerovalent iron: the role of iron corrosion products. in International Conference on Radioactive Waste Management and Environmental Remediation, 8th. 2001. Bruges, Belgium: American Society of Mechanical Engineers.	**4**	**FA,CA**
15	Noubactep C., Meinrath G., Volke P.; Peter H.-J., Dietrich P., Merkel B. (2001): Understanding the mechanism of the uranium Mitigation by zero valent iron in effluents. Wiss. Mitt. Institut für Geologie der TU Bergakademie Freiberg, Band 18, pp.37–44, ISSN 1433-1284.	**6**	**FA,CA**

Book Chapters

No	Details (title, authors, publication date, etc.)	Author	
		Number	Type
1	Noubactep C. (2020): Metallic Iron for Environmental Remediation: Prospects and Limitations. Chap. 36, CAB International, A Handbook of Environmental Toxicology: Human Disorders and Ecotoxicology. J.P.F. D'Mello (ed), 531–544.	**1**	**FA,CA**
2	Noubactep C. (2020): A framework for technology development in Africa: The case of metallic iron (Fe^0) water filters for safe drinking water provision. Science and Biotechnology in Africa: Proceedings of a Conference on Scientific Advancement. J. Kapalanga, D. Raphael, L. Mutesa (eds) Cambridge Scholars Publishing, New Castle, UK, 111–139.	**1**	**FA,CA**
3	Noubactep C., Tchatchueng J.-B., Woafo P. (2016): Traitement décentralisé de l'eau sur filtres à fer métallique: le sentier africain. In 'Approvisionnement en eau potable en Afrique: Une technologie appropriée pour relever le défi' Afrique & Science vol. XY, 57-73.	**3**	**FA,CA**
4	Noubactep C. (2016): Editorial. In 'Approvisionnement en eau potable en Afrique: Une technologie appropriée pour relever le défi' Afrique & Science vol. XY, 7-9.	**1**	**FA,CA**
5	Noubactep C. (2013): Metallic iron for clean agriculture. In Maternal – Child Health, Göttingen International Healt Network (GIHN); U Groß and K. Wydra (Eds.), Universitätsverlag Göttingen; ISBN: 978-3-86395-084-2, pp. 89–97.	**1**	**FA,CA**
6	Noubactep C. (2013): Decentralized water treatment for enhanced food safety. In the international conference on " Cutting edge science & technologies towards food, health and environment "- IFSDAA 2012. September 2012. Göttingen, Germany.	**1**	**FA,CA**
7	Noubactep C., Schöner A., Sauter M. (2012): Significance of oxide-film in discussing the mechanism of contaminant removal by elemental iron materials. In "Photo-Electrochemistry & Photo-Biology for the Sustainability", Union Press, ISBN-10: 4946428615; ISBN-13: 978-4946428616, pp. 97–122.	**3**	**FA,CA**

Edited Books and Journals

No	Details (title, authors, publication date, etc.)	Author	
		Number	
1	Self-reliance in safe drinking water provision in Africa: *An appropriate solution*. Africa & Science 2019, vol. XY, 80 pp. (In Revision)	1	
3	Approvisionnement en eau potable en Afrique: Une technologie appropriée pour relever le défi. Afrique & Science 2016, vol. XY, 80 pp.	1	

Additional Accomplishments

No	Details
1	**Language skills** German: fluent in spoken and written English: fluent in spoken and written French: mother tongue Madumba: mother tongue
2	**Qualifications (special skills)** - Radiochemistry (uranium decay series, nuclear spectroscopy) - Radiation Protection Officer (Strahlenschutzbeauftragter) - Uranium geochemistry - Low temperature aqueous metal corrosion - Laser fluorescence spectroscopy and spectroscopic speciation - Determination, evaluation and application of chemical thermodynamic data (Geochemical modelling; PHREEQC etc.) - Coordinator for renewable energy (Witzenhausen/Germany - since November 2010) - Profound knowledge on decentralized provision with geothermal energy (Inaugural Lecture for Habilitation) - Profound knowledge on the geochemistry of manganese oxides (Oral defense of the Habilitation thesis).
3	**Professional affiliation** German Chemical Society (GDCh) German Hydrogeology Section (FH-DGG) International Foundation for Sustainable Development in Africa and Asia (IFSDAA) Göttingen International Health Network (GIHN)
4	**Third party funded research projects** **Successful** Title: Characterization of the processes of uranium release from natural rocks through natural waters and characterization of the long term reactivity of reactive materials for groundwater remediation. Project period: 01/07/2005-30/06/2007 and 15/09/2007-14/09/2008 *Financial volume*: approx. 200,000 Euro Funding organization: German Research Foundation. **Not Successful** 1. ERC Starting Grant 2011 (European Commission); *Financial volume*: 1,500,000 Euro 2. Eigene Stelle, German Research Foundation (2009, 2010, 2011, 2015); *Financial volume*: 120,000 Euro 3. Feodor Lynen Research Fellowship for Experienced Researchers (2010) from the Alexander von Humboldt Foundation; *Financial volume*: 160,000 Euro

5	**PhD students:** Rao Tan; Metallic iron beds for wastewater treatment (UGOE 2019 -) Huichen Yang; Modelling the permeability of metallic iron beds for water treatment (UGOE 2019 -) Bernard Konadu Amoah; Metallic iron for phosphate removal (Hohai University 2019 -). Minhio Xiao; Characterizing the reactivity of Fe^0/FeS_2 systems for water treatment (Hohai University 2019 -) M. Touomo-Wouafo; Optimizing the efficiency of household iron filters for safe drinking water, (2014/2017 - University of Ngaoundéré/Cameroon).[2 peer-review journal article available] H.T. Mwakabona; Testing steel wool for fluoride removal at pilot scale, (NM-AIST Arusha/Tanzania) [4 peer-review journal article available] **R. Tepong-Tsindé**; Metallic iron filters for safe drinking water in informal settlements of Douala (Cameroon): A pilot scale study (**Douala**/Cameroon and **Göttingen**/Germany, **2020**). **A.I. Ndé-Tchoupé**; Designing household Fe^0-based water filters. (University of **Douala**/Cameroon, **2019**). **N. Gactha-Bandjun**; Investigating the impacts of inorganic ligands on the reactivity of Fe^0/H_2O systems for water treatment. (University of **Maroua**/Cameroon, **2018**). **B.D. Btatkeu-K.**; Optimizing the efficiency of household iron filters for safe drinking water, (University of **Ngaoundéré**/Cameroon, **2015**). **F. Togue-Kamga**; Modelling, numerical simulation and experimental study of iron filters for safe drinking water provision (University of **Yaoundé** I/Cameroon, **2013**).
6	**Master students** Xuesong Cui; Characterizing the reactivity of Fe^0/FeS_2 systems for water treatment. (Hohai University 2020) Mesia Lufingo; Testing granular iron for fluoride removal. (NM-AIST Arusha – 2020) Ben Hildebrant; Characterizing the reactivity of steel wool for water treatment. Goettingen (2018) Svenja Heimann; Testing granular iron for fluoride removal. (2018) G. Alyoussef; Characterizing the impact of contact time in investigating processes in Fe^0/H_2O systems. Goettingen (2016). M. Phukan; Characterizing the Fe^0/sand system by the extent of dye discoloration. Goettingen (2015). M. Miyajima; Optimizing the design of metallic iron filters for water treatment. Goettingen (2012).
7	**Bachelor student** A.-M.F. Kurth; Topic: Discoloration of methylene blue by elemental iron - Influence of the shaking intensity, Goettingen (2008).
8	**Student research project** H. Yang; Review on tools to model permeability loss in metallic iron-based filters, Goettingen (2018). M. Phukan; Filtration processes in water treatment: An overview, Goettingen (2014). A.-M.F. Kurth; Discoloration of methylene blue by elemental iron, Goettingen (2008). M. Weidemann; Reactive walls for groundwater remediation, Goettingen (2007). T. Haas; Contaminant release from ore materials, Goettingen (2006). S. Hellbach; Reactive materials and reactive walls for groundwater remediation, Goettingen (2006). J. Ziesch; Groundwater contamination: Origin and remediation options. Goettingen (2006). T. Perl; Reactive materials and reactive walls for groundwater remediation, Freiberg (2001).
9	**PhD examination** Since February 2011 (habilitation degree) I've participated to the jury of twelve (12) PhD as referee.
10	**Invited referee** For research/review manuscripts from several journals, more than 500 manuscripts reviewed. For an application for the rank of Associate Professor at the Faculty of Arts & Sciences of the American University of Beirut (Lebanon). For a research grant from the Netherlands Organization for Scientific Research (Netherlands). For a research grant from the Czech Science Foundation (Czech Republic). For a research grant from the American University of Beirut (Lebanon). For a research grant from the Cape Peninsula University (South Africa). For a research grant from the International Foundation for Science (Sweden). For a research grant from the Chilean National Science and Technology Commission (CONICYT – Chile). For a research grant from the National Center of Science and Technology evaluation (Republic of Kazakhstan)
11	**Associate Editor:** Journal of Environmental Studies, Sustainability (MDPI)

12	**Papers published in open access and journals non ISI/SCOPUS referenced** Noubactep C. (2018): Metallic iron (Fe^0) provide possible solution to universal safe drinking water provision. J. Water Technol. Treat. Methods. 1(1):102. Noubactep C., Makota S., Bandyopadhyay A. (2017): Rescuing Fe^0 remediation research from its systemic flaws. Research and Review Insights, doi: 10.15761/RRI.1000119. Noubactep C. (2017): Metallic iron for water treatment: Lost science in the West. Bioenergetics 6, 149. doi:10.4172/2167-7662.1000149. Noubactep C. (2014): Beyond appropriateness and sustainability: Universal self-reliance in water supply. Separation Science & Application 34 (1), 26–27. Noubactep C. (2014): Beyond appropriateness and sustainability: Universal self-reliance in water supply. G.I.T. Laboratory 34 (5-6), 14–16. Noubactep C. (2014): Metallic iron for water treatment: Healing a research community. Journal of New Developments in Chemistry (ISSN NO: 2377-2549), Vol. 1, No. 1 (5 pages). Rahman M.A., Karmakar S., Salama H., Gactha-Bandjun N., Btatkeu K. B.D., Noubactep C. (2013): Optimising the design of Fe^0-based filtration systems for water treatment: The suitability of porous iron composites. Journal of Applied Solution Chemistry and Modeling 2, 165–177. Noubactep C. (2013): On the suitability of admixing sand to metallic iron for water treatment. International Journal of Environmental Pollution and Solutions 1, 2–36. Noubactep C. (2007): Processes of contaminant removal in "Fe^0–H_2O" systems revisited. The importance of co-precipitation. Open Environ. Sci. 1, 9–13.

13	**Submitted papers and papers in preparation or revision** Konadu Amoah B., Ndé-Tchoupé A.I., Hu R., Noubactep C. (2021): Metallic iron (Fe^0) for aqueous phosphate removal: A critical review. Critical Reviews in Environmental Science and Technology (Submitted) Kenmogne-Tchidjo J.F., Vollmer S., Noubactep C. (2021): A new approach for reducing iron deficiency anemia in populations. Development Engineering (Submitted). Ndé-Tchoupé A.I., Konadu Amoah B., Nya E.L., Gwenzi W., Hu R., Noubactep C. (2021): Single-household water filters for the developing world: Solving the enigma of the Kanchan arsenic filter (In Preparation) Gwenzi W., Ndé-Tchoupé A.I., Mwamila T.B., Nya E.L., Konadu Amoah B., Noubactep C. (2021): African groundwater systems as reservoirs of toxic geogenic contaminants: A medical hydrogeology perspective (In preparation) Konadu Amoah B., Ndé-Tchoupé A.I., Hu R., Gwenzi W., Ruppert H., Noubactep C. (2021): Kanchan Arsenic Filters for household water treatment: Unsuitable or unsustainable? (In Preparation) Hu R., Yang H., Cao V., Konadu-Amoah B., Ndé-Tchoupé A.I., Gwenzi W., Ruppert H., Noubactep C. (2021): Realizing the potential of metallic iron for environmental remediation: Flee or adapt? Toxics, (In Preparation). Noubactep C., Caré S., Gwenzi W. (2022): Discussing the service life of Fe^0-based filtration systems: The burden of a poor system analysis. Chemical Engineering Journal (In Preparation)

Research and Lecture Plans

The overall research concept is given. The leading potential is proven by the number of concepts developed and the number of PhD students supervised.

Chicgoua Noubactep has been engaged in water treatment since the early phase of his scientific career. In his master thesis (1992) on characterizing the efficiency of activated carbons for water treatment, he could develop a simple and affordable test to compare the efficiency of activated carbons. The result was published in Carbon [35 (1997) 365] and has been independently referenced 85 times (SCOPUS: 2018/01/08). He could improve his knowledge on "activated carbons for drinking water" during postgraduate studies at the Institute of Water Chemistry of the Dresden University of Technology (Germany - Prof. E. Worch). During this period he could investigate the specific interactions of phenolic compounds with various adsorbing materials.

As physical chemist with profound knowledge on interface processes and water treatment, Mr. Noubactep joined the group of Prof. B. Merkel at Freiberg University of Mining and Technology (Germany) for a PhD. His dissertation (2002) dealt with aqueous uranium (U^{IV}) removal by elemental iron (Fe^0) and essentially consisted in the elucidation of the mechanism of U^{IV} fixation in the presence of Fe^0 as used in in-situ reactive walls for groundwater remediation. His results challenged the view, that U^{VI} was removed by a chemical reduction to less soluble U^{IV} ('reductive precipitation').

Between 2002 and 2005, Dr. Noubactep mostly worked as post-doc on issues regarding the geochemistry of surface processes (water-rock interactions) and the fate of contaminants in the hydrosphere. During these three years he prepared and published six (6) peer-review papers on ways to improve the understanding of interactions at water/rock interfaces. He could show that the approach of using results from short term laboratory studies to model environmental processes could be improved by performing experiments lasting for longer times.

Dr. Noubactep has particular capacity on conceiving and conducting principle experiments to elucidate complex problems. He has demonstrated it in his PhD-work were he could demonstrate the mechanism of aqueous U^{VI} removal by Fe^0 in a series of bulk reactions. From 2005 on, he could extend the observations made on the $Fe^0/U^{VI}/H_2O$ system to Fe^0/H_2O systems in general and explain many reported discrepancies. This work has resulted in the revision of the mechanism of contaminant removal in Fe^0/H_2O systems (with 20 mostly single-authored review articles).

Dr. Noubactep is mostly known through his contribution on the use of aqueous corroding iron (Fe^0 as in-situ generator of hydroxides/oxides) for the removal of toxic species from water. He has presently given the most reliable concept to rationalize the process of contaminant removal in Fe^0/H_2O systems. This innovative concept exceeds the current state-of-the-art knowledge. The premise that the primary mode of contaminant removal is through co-precipitation and complex formation is promulgated through his research. His first-rate papers (20 review articles and 30 short communications) on the importance of co-precipitation and mechanisms of contaminant removal, evolution of reactive species, kinetics and operational parameters in Fe^0/H_2O system mark his interest and contributions in this field.

This new concept is regarded as scientific understanding of an efficient technical process. Therefore, targeted experimental work is needed to accurately develop the Fe^0 technology in general and exhaust the potential of Fe^0 beds for safe drinking water production. Dr. Noubactep has co-authored more than 100 good peer-reviewed articles since 2003. He is mostly the principal author.

Dr. Noubactep has developed during the last 60 months a sound concept for improving iron bed efficiency (50 peer-reviewed articles). He is now poised to test his scientific ideas to work as a practical filter for safe drinking water production at several scales (household, small and large communities). Dr. Noubactep currently collaborates with leading scientists in various countries (e.g. Argentina, Australia, Bangladesh, Cameroon, Canada, Rwanda, UK, USA, South-Africa, Tanzania, Zimbabwe).

Future works will be focused at the continuation of this effort. The overarching goal is to determine, optimise and demonstrate the feasibility of metallic iron (Fe^0 and related materials) for commercial-scale land and groundwater remediation and for (decentralized) safe drinking water provision. Consequently, the applicant will address the research challenges conceptually exposed in his recent papers at laboratory and pilot scale experiments. The results will lead later to large full scale field demonstration projects to be conducted at several sites. The ingredients required for successful application of this technology include material selection, system design and monitoring strategies.
The overall objective is to build or/and sustain expertise in Fe^0-remediation while developing Fe^0 filters for decentralized safe drinking water provision. The concepts exposed in Dr. Noubactep's recent communications can be divided into an infinite number of working packages in form of individual research projects at all academic levels (Master, PhD, Postdoc). The results will assist the establishment of best practice, guidance and recommendations for the use of metallic iron in environmental remediation. The development of models to accurately predict the efficiency of Fe^0 and the service life of Fe^0 filters are part of this research**.**

Lecture Plan

Dr. Noubactep constantly strives to stimulate and guide students to become independent thinkers (practicing researchers or engineers). A good mixture of classroom, laboratory, and field activities has been designed and is progressively improved/actualized. Major improvement sources are teaching, technical reading, conference/seminar attending and own research progress. These sources provide an appropriate educational experience to students. In addition, Dr. Noubactep brings the experiences of 20 years intensive research on 'remediation with metallic iron' and '25 years continuous teaching' into the classroom. Of particular relevance are the following activities:

Teaching Analytical Chemistry, Environmental Chemistry, General Chemistry, Physical Chemistry, Water Chemistry and Hydrogeochemistry to undergraduate and graduate students.

Developing a new course on "Decentralized Safe Drinking Water Provision" at the University of Göttingen.

Teaching "Water Quality" as Part-Time Lecturer at the Pan African University Institute of Water and Energy Sciences (including Climate Change) (PAUWES) at the University of Tlemcen (Algeria).

Teaching "Water Treatment" and "Academic Writing" as Visiting Professor (DAAD) at the University of Douala and the Université des Montagnes (both in Cameroon).

Teaching "Academic Writing" as Part-Time Lecturer at the Pan African University Institute of Water and Energy Sciences (including Climate Change) (PAUWES) at the University of Tlemcen (Algeria).

Teaching "Water Treatment" and "Academic Writing" as Visiting Professor (DAAD) at the Nelson Mandela African Institution of Science and Technology in Arusha (Tanzania).

Teaching Languages are English, French and German.

Dr. Noubactep can conceive and teach new interdisciplinary courses (e.g. on request or where necessary) (e.g. Environmental Radioactivity, Arsenic Geochemistry or Uranium Geochemistry).

Rittmarshausen, 01.09.2021

Dr. Noubactep