

# Curriculum Vitae

Dr. Nicole Reddig

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## Biographical data

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Name	Dr. Nicole Reddig
Profession	Diplom Chemikerin
Date of birth	20 <sup>th</sup> November 1974
Place of birth	Hamm, Nordrhein-Westfalen, Germany
Nationality	German
Maritus status	Single, no children

## Education

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Since 09/04	Postdoctoral Research Assistant at the Department of Chemistry, University of York, UK, with Prof. Dr. R. Perutz, Dr. A.-K. Duhme-Klair and Dr. S. Duckett
07/18/03	Official graduation: Dr. rer. nat. ( <i>magna cum laude</i> )
01/00 - 07/03	Ph.D. studies at the Institute of Inorganic and Analytical Chemistry, University of Münster, Germany, with Prof. Dr. B. Krebs Title of Ph.D. thesis: "Redoxactive manganese-containing metalloenzymes – contributions towards structure and function"
04/01 - 08/01	Visiting Scholar at the University of Michigan, Ann Arbor, U.S.A. with Prof. Dr. Vincent L. Pecoraro
12/99	Diploma Degree at the University of Münster, Germany, with Prof. Dr. B. Krebs Title of diploma thesis: "Mixed valent manganese(III/IV) complexes for the catalytical activation of peroxide"
10/94 - 12/99	Studies of chemistry at the University of Münster, Germany
02/97	Intermediate Diploma at the University of Münster, Germany
08/85 - 05/94	Grammar School: Märkisches Gymnasium Hamm, Germany
05/94	A-Levels at the Märkisches Gymnasium Hamm, Germany
08/81 - 07/85	Hermann-Gmeiner Primary School, Hamm, Germany

## Professional Experience

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03/00 – 08/04	<p>Research associate at the Institute of Inorganic and Analytical Chemistry.</p> <p>Organisation and supervision of the first year students' practical course in Inorganic Chemistry.</p> <p>Development and supervision of a State Examination and Master Thesis of a teaching profession student and a chemistry student of the University of York (Erasmus fellowship student), respectively.</p> <p>Introduction of new graduands into their research fields.</p> <p>Mentoring and supervision of undergraduate students in practical studies and courses.</p>
06/99 - 02/00	<p>Teaching associate at the Institute of Inorganic and Analytical Chemistry tutoring the first and second year students' practical course in Inorganic Chemistry.</p>

## Languages

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German	native language
English	fluent
French	basic knowledge
Latin	"Latinum"

## Special and project related Skills and experiences

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Special skills	<p>Excellent knowledge of bioinorganic, inorganic, and organic chemistry, single crystal X-ray diffraction analysis, cyclic voltammetry, NMR-, IR-, UV/Vis-, EPR- spectroscopy, mass spectrometry, CHN-analysis</p>
Computer literacy	<p>Windows 95/98/00/NT/XP, Microsoft Office (Word, Excel, PowerPoint), Origin, Adobe Acrobat, Chem-Window, Diamond, SHELXL-97, Internet Beilstein, Sci-finder, Cambridge Structural Database</p>
Seminars	<p>Certification according to §5 ChemVerbV (Authorisation to purchase and sale of hazardous chemicals)</p> <p>Risk Management Systems within the Chemical Industry</p> <p>Modern Procedures of Competition Analysis</p> <p>Introduction to Patent Law and Patent Information</p>
Commitment	<p>Member of the board of Young Chemist Society (since 1998)</p> <p>Organisation and realisation of the ChemiIndustrieForum (2000, 2001)</p> <p>Organisation and realisation of the 10<sup>th</sup> Workshop of Photosynthesis in Münster (2001)</p> <p>Organisation of lectures, excursions, seminars and fairs</p>

## Hobbies

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Travelling, sports (volleyball, badminton), cooking, theatre

## Publications

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- 1.) **N. Reddig**, D. Pursche, and A. Rompel, "Unique Example of Flexible Phenol Coordination in Mononuclear Manganese Compounds", *J. Chem. Soc., Dalton Trans.* **2004**, 9, 1474.
- 2.) **N. Reddig**, D. Pursche, B. Krebs and A. Rompel, "Mononuclear manganese(III) catechol compounds as substrate adduct complexes for manganese substituted intradiol cleaving catechol dioxygenases", *Inorg. Chim. Acta.* **2004**, 9, 2703.
- 3.) **N. Reddig**, D. Pursche, M. Kloskowski, C. Slinn, S. Baldeau, and A. Rompel, "Tuning the Catalase Activity of Dinuclear Manganese Complexes by Utilizing Different Substituted Tripodal Ligands", *Eur. J. Inorg. Chem.* **2004**, 4, 879.
- 4.) D. Pursche, M. U. Triller, **N. Reddig**, C. Slinn, A. Rompel, and B. Krebs, "Mimicking the reduced, oxidized and azide inhibited form of manganese superoxide dismutase by mononuclear Mn-compounds utilizing tridentate ligands", *Inorg. Chim. Acta.* **2004**, 357, 1695.
- 5.) D. Pursche, M. U. Triller, **N. Reddig**, A. Rompel, and B. Krebs, "Synthesis and Characterisation of  $[Mn_3(ppi)_2(\mu-OAc)_4(H_2O)_2] \cdot 2MeOH$  – Unusual Structural Properties of a Trinuclear Oxygen-Rich Manganese Complex", *Z. Anorg. Allg. Chem.* **2002**, 629, 24.
- 6.) **N. Reddig**, M. U. Triller, D. Pursche, A. Rompel, and B. Krebs, "A Tetranuclear Manganese Cluster with a Star-Shaped  $Mn_4O_6$  Core Motif: Directed Synthesis using a Mononuclear Precursor Complex", *Z. Anorg. Allg. Chem.* **2002**, 628, 2458.
- 7.) D. Pursche, M. U. Triller, **N. Reddig**, F. Schweppe, A. Rompel, and B. Krebs, "Bis( $\mu$ -oxo)dimanganese complexes by tripodal ligand design", *J. Inorg. Biochem.* **2001**, 86, 385.
- 8.) D. Pursche, **N. Reddig**, M. U. Triller, and A. Rompel, "Structural model compounds for photosystem II" *Biol. Chem.* **2001**, 382, Suppl: S83.

## Conferences

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- 1.) 11<sup>th</sup> Workshop of Photosynthesis, Bielefeld, 10/11/2002; Oral presentation:  
„The water-oxidising complex: bioinorganic model compounds to mimic the catalase activity and the Mn-Tyr  $Y_z$  – distance”
- 2.) Symposium of the Deutsche Forschungsgemeinschaft (DFG) within the scope of the SFB 424 "Molecular orientation as functional criteria within chemical systems", Münster, 10/01–02/2002; Poster presentation:  
"Influence of metal centres on the activity of metallo proteins and their model compounds: Photosystem II"
- 3.) ICC 35, Heidelberg, 07/21–26/2002; Poster presentations:
  - a) "Phenoxobridged Mn(II) complexes by systematic dimerisation of the related mononuclear compounds" (**Poster award**)
  - b) "Synthesis and characterisation of  $[Mn_3(ppi)_2(\mu-OAc)_4(H_2O)_2] \cdot 2MeOH$  – rare structural properties of a trinuclear oxygen-rich manganese complex"
- 4.) Conference of the Nobel Price laureates; Meeting of the chemists, Lindau, 06/30-07/05/2002
- 5.) Symposium of the Deutsche Forschungsgemeinschaft (DFG) within the scope of the SFB 424 "Molecular orientation as functional criteria within chemical systems", Münster, 05/03/2002; Poster presentation:  
"New structural and functional models for manganese and copper containing enzymes: Photosystem II and catechol oxidase"
- 6.) 10<sup>th</sup> Workshop of Photosynthesis, Münster, 10/12/2001
- 7.) Conference of the "Gesellschaft Deutscher Chemiker", Würzburg, 09/23–29/2001; Poster presentation:  
"Manganese complexes as model compounds for redox active manganese-containing metallo enzymes"
- 8.) 10<sup>th</sup> ICBIC, Florenz, 08/26–31/2001; Poster presentation:  
"Bis( $\mu$ -oxo)dimanganese complexes by tripodal ligand design"
- 9.) Gerald T. Babcock Symposium, East Lansing, Michigan, 06/01–02/2001
- 10.) 9<sup>th</sup> Workshop of Photosynthesis, Hannover, 10/20/2000
- 11.) ICC 34, Edinburgh, 07/09–14/2000; Poster presentation:  
"Selective Syntheses of homo and mixed-valent bis( $\mu$ -oxo)dimanganese cores by tripodal ligand design"
- 12.) Symposium of the Deutsche Forschungsgemeinschaft (DFG) within the scope of the SFB 424 "Molecular orientation as functional criteria within chemical systems" Münster, 06/30/2000; Poster presentation:  
"New structural and functional models for manganese and copper containing enzymes: Photosystem II and catechol oxidase"

York, 20 October 2004