

## Curriculum Vitae

### Personal data:

Name: Andrea Rossin

Date of birth: 31<sup>st</sup> January 1974

Affiliation: Universitat Autònoma de Barcelona – Physical chemistry  
Department

Position: Post-doctoral researcher

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### Studies:

2001-2004: Ph.D. student at Cardiff University (United Kingdom), Inorganic Chemistry Department, under the supervision of Dr. Simon Aldridge. Degree thesis on synthesis and DFT theoretical characterisation of new group 13 diyl complexes with transition and main group metals. Chemistry of transition metal boryl and borylene complexes.

1993-1999: First class degree with full marks in chemistry at Torino University (Italy), under the supervision of Prof. Pier Luigi Stanghellini (Inorganic Chemistry Dept.). Degree thesis on synthesis and FT-IR/Raman characterisation of metallorganic compounds containing mono- and bicyclic aromatic rings C<sub>x</sub>H<sub>y</sub> (benzene, tropylium cation, indene, indenide ion, azulene).

1989-1993: Scientific High School Degree with full marks in Biella (Italy).

### Past scientific job experiences:

1997-1998: Torino University, part-time assistant in teaching laboratories of Physical Chemistry undergraduate courses, organised by Prof. Piero Ugliengo

1999: Alessandria University (Italy), scholarship for the creation of a Raman spectra metallorganic database for the Web (pages created with Netscape Composer)

1999: cooperation with Torino University for thesis work completion (synthesis of: cobalt clusters with COT ligand, bimetallic derivatives of indene with chromium and rhodium, tropylium chloride).

## Language knowledge:

English – excellent, both written and spoken (attendance of Cambridge Proficiency Level courses and Pitman Intermediate Level certificate)

French – scholastic

Spanish – basic, better spoken than written

## Computer knowledge:

Good knowledge of the Microsoft Office pack (Word, PowerPoint, Excel) and of the Internet typical software (Explorer, Outlook Express, Netscape Navigator). Creation of web pages with the help of FrontPage and Netscape Composer. Basic notions of HTML language. Experience with chemical software (Chemdraw, Gaussian03, ADF2002.02, Molden, Moldraw) and with the Unix/Linux programming language.

## Publications:

1. “Linking of metal centres through boryl ligands: synthesis, spectroscopic and structural characterisation of symmetrically bridged boryl complexes” – Aldridge S., Calder R.J., [Rossin A.](#), Dickinson A.A., Willock D.J., Jones C., Evans D.J., Steed J.W., Light M.E., Coles S.J., Hursthouse M.B., *J. Chem. Soc., Dalton Trans.* **2002**, 2020.
2. “Carbonyl analogues? Analysis of the Fe-E (E=B, Al, Ga) bonding in cationic terminal diyl complexes by Density Functional Theory” – Aldridge S., [Rossin A.](#), Coombs D.L., Willock D.J., *Dalton Trans.* **2004**, 2649.
3. “Fe=B double bonds: synthetic, structural and reaction chemistry of cationic terminal borylene complexes” – Coombs D.L., Aldridge S., [Rossin A.](#), Jones C., Willock D.J., *Organometallics* **2004**, 23, 2911.
4. “Fe-Ga multiple bonding? Synthesis, spectroscopic and structural characterisation of a transition metal complex containing a cationic two-coordinate gallium centre” – Bunn N.R., Aldridge S., Coombs D.L., [Rossin A.](#), Willock D.J., Jones C., Ooi L., *Chem. Comm.* **2004**, 1732.
5. “( $\eta^5$ -C<sub>5</sub>Me<sub>5</sub>)Fe(CO)<sub>2</sub>(BOCH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>O): an organoiron complex containing the (trimethyleneglycolato)boryl ligand” – [Rossin A.](#), Aldridge S., Coombs D.L., Ooi L., *Organometallics* **2004**, in press.

6. "Heteroatom-stabilised boryl complexes: substitution and abstraction chemistry" – [Rossin A.](#), Aldridge S., Coombs D.L., Ooi L., *Organometallics* **2004**, submitted.
7. "Substitution, abstraction and addition chemistry of gallyl and gallylene complexes" – Bunn N.R., Aldridge S., Coombs D.L., [Rossin A.](#), Jones C., Willock D.J., *Organometallics* **2004**, submitted.

### **Conference presentations and posters:**

1. November 2003, Inorganic Seminars, Cardiff University: 1-hour talk on the Ph.D. thesis contents
2. April 2004, Easter Conference, Cardiff University: winner of the prize for the best oral presentation of the post-graduate student of the Chemistry Department
3. April 2004, Easter Conference, Cardiff University: presentation of 2 posters in cooperation with other members of the research group on chemistry of boryl, borylene and gallyl complexes of iron.

### **Conference attendance:**

1. July 2001, University of York: Royal Society of Chemistry Dalton Division National Meeting
2. March 2003, University of Exeter: Royal Society of Chemistry Dalton Division South-West regional meeting
3. March 2003, Cardiff Easter Conference
4. July 2003, King's College, London: Royal Society of Chemistry Dalton Division National Meeting
5. April 2004, Cardiff Easter Conference
6. May 2004, Cardiff Anglo-Dutch conference
7. July 2004, University College, London: Royal Society of Chemistry Dalton Division National Meeting