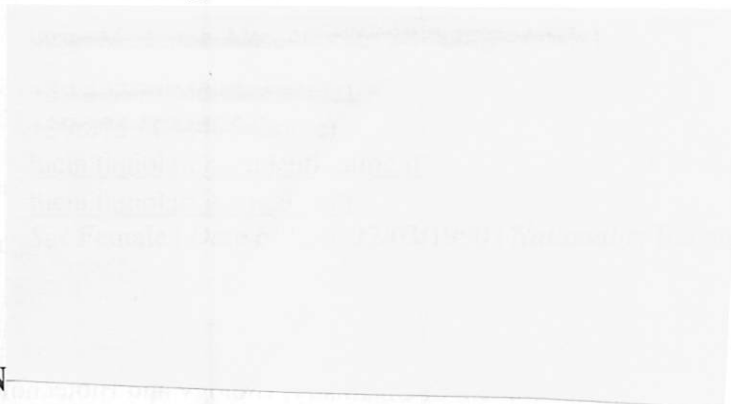


**PERSONAL  
INFORMATION**

Address  
Phone Number  
email

**Lucia Fagiolari****CURRENT POSITION**

01/11/2014 – 31/10/2017

**PhD Position in Chemical Science**

*Supervisors:* Prof. Alceo Macchioni (University of Perugia, Italy), Dr. Ferdinando Costantino (University of Perugia, Italy)

*Address:* Inorganic Chemistry, Catalysis

*Project:* iridium(III)-based heterogeneous catalysts for water oxidation

*Affiliation:* Department of Chemistry, Biology and Biotechnology – University of Perugia. Via Elce di Sotto, 8 - 06123 Perugia (Italy). Phone number: +39 075 5855584 (office); +39 075 585 5594 (laboratory)

01/10/2016 – 31/03/2017

**Exchange PhD candidate**

*Supervisor:* Prof. Greta Patzke

*Address:* Inorganic Chemistry, Electrochemistry, Electrocatalysis

*Project:* Ir(III)- and Ru(III)-doped Layered Double Hydroxides for Oxygen Evolution Reaction

*Affiliation:* Department of Chemistry – University of Zurich Irchel. Winterthurerstrasse, 190 – 8057 Zurich (Switzerland). Phone number: +41 446 354682 (office); +41 446 354677 (laboratory)

**EDUCATION AND  
TRAINING**

01/10/2015 - 31/12/2015

**Tutoring activity for General Chemistry**

*Supervisors:* Prof. Cristiano Zuccaccia (University of Perugia, Italy), Prof. Gianfranco Bellachioma (University of Perugia, Italy)

*Principal subject:* Tutoring activity for General Chemistry Course

01/10/2012 - 24/07/2014

**Master Degree in Chemical Science**

Department of Chemistry, Biology and Biotechnology - University of Perugia (Italy)

*Final mark:* 110/110 cum Laude

*Principal subject:* synthesis, characterization and kinetics studies on iridium(III)-based heterogenized water oxidation catalysts.

*Thesis title:* Immobilization of water oxidation catalysts on solid supports

*Supervisors:* Prof. Alceo Macchioni (University of Perugia, Italy), Prof. Riccardo Vivani (University of Perugia, Italy)

01/10/2009 - 27/09/2012

### **Bachelor Degree in Chemical Science**

Department of Chemistry, Biology and Biotechnology - University of Perugia (Italy)

*Final mark:* 110/110 cum Laude

*Principal subject:* kinetics studies of transition metal EDTA complexes as water oxidation catalysts

*Thesis title:* Water splitting catalyzed by metal-EDTA complexes

*Supervisor:* Prof. Alceo Macchioni (University of Perugia, Italy)

## **PERSONAL SKILLS**

Mothertongue	Italian
Other languages	Written and spoken fluent English Basic German
Job-related skills	Synthesis of inorganic layered compounds Hydrothermal synthesis Characterization of inorganic layered compounds (X-ray diffraction, SEM and TEM microscopy, FT-IR, ICP-OES analysis) NMR characterization of metallorganic compounds UV-Vis spectroscopy Oxygen-detecting system (Clark electrode, fluorescence sensor) Gas-detecting system (differential manometry) Set up of water oxidation apparatus for catalytic studies Catalytic and kinetics studies for water oxidation reaction Electrochemistry and electrocatalysis Set up of electrochemical cells for Oxygen Evolution Reaction
Computer skills	Microsoft Window OS: Expert Adalta Origin: Expert Microsoft Office: Good

Instrument-related software	Testo Confort Software (differential manometer) Hanna Instrument (Clark electrode and pH meter) Bruker TopSpin (NMR) X'PERT Data Collector (X-ray diffractometer) Win X POW (X-ray diffractometer) Nova Metrohm (potentiostat/galvanostat) UNISENSE SensorTrace Basic (Clark electrode)
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## ADDITIONAL INFORMATION

### Conferences

- Fagiolari, L.; Costantino, F.; Marmottini, F.; Vivani, R.; Scafuri, A.; Macchioni, A.; "IrCl(HEDTA)<sup>-</sup> intercalated into ZnAl-LDH as efficient water oxidation heterogeneous catalyst", 18<sup>th</sup> International Symposium on Intercalation compounds (18<sup>th</sup> ISIC), Strasbourg, 31<sup>th</sup> May – 4<sup>th</sup> June 2015
- Macchioni, A.; Bucci, A.; Corbucci, I.; Fagiolari, L.; Pastori, G.; Zuccaccia, C.; "Chemical and light-driven oxidation of water catalyzed by iridium complexes", 250<sup>th</sup> American Chemical Society National Meeting & Exposition, Boston, 16<sup>th</sup> – 20<sup>th</sup> August 2015
- Fagiolari, L.; Scafuri, A.; Costantino, F.; Vivani, R.; Macchioni, A.; "An Efficient and Recyclable Water Oxidation Catalyst Obtained by Diluting Ir(III) into a ZnAl LDH Structure", XLIII National Congress of Inorganic Chemistry, organized by the Italian Chemical Society, Camerino (Italy) 9<sup>th</sup> – 12<sup>th</sup> September 2015
- Fagiolari, L.; Scafuri, A.; Costantino, F.; Vivani, R.; Macchioni, A.; "An Efficient and Recyclable Water Oxidation Catalyst Based on a Ternary Zn-Al-Ir Layered Double Hydroxide", TUMA 34, Convegno delle Sezioni Toscana Umbria Marche Abruzzo della Società Chimica Italiana, Perugia (Italy), 23<sup>rd</sup> – 25<sup>th</sup> September 2015
- Fagiolari, L.; Costantino, F.; Vivani, R.; Macchioni, A.; "A Ternary ZnAlIr Layered Hydroxide as Efficient Water Oxidation Heterogeneous Catalyst", 1<sup>st</sup> Enerchem Congress, Florence, 18<sup>th</sup> - 20<sup>th</sup> February 2016
- Fagiolari, L.; Scafuri, A.; Costantino, F.; Vivani, R.; Nocchetti, M.; Macchioni, A.; "A Ternary Zn-Al-Ir Hydrotalcite-like Compound Exhibiting High Efficiency and Recyclability as Water Oxidation Catalyst", XIII PhD Day, Bologna, 10<sup>th</sup> - 11<sup>th</sup> March 2016
- Fagiolari, L.; Costantino, F.; Vivani, R.; Nocchetti, M.; Macchioni, A.; "A Ternary Zn-Al-Ir Hydrotalcite-like Compound as Efficient Water Oxidation Heterogeneous Catalyst", XLIV National Congress of Inorganic Chemistry, organized by the Italian Chemical Society, Padova, 14<sup>th</sup>-17<sup>th</sup> September 2016
- Fagiolari, L.; Costantino, F.; Nocchetti, M.; Vivani, R.; Macchioni, A.; "A Ternary Zn-Al-Ir Hydrotalcite-like Compound as Efficient Water Oxidation Heterogeneous Catalyst", COST Carisma meeting 2017, Lisbon, 6<sup>th</sup>-8<sup>th</sup> March 2017
- Fagiolari, L.; Patzke, G.; Macchioni, A.; "Ir(III) and Ru(III)-doped hydrotalcite-like compounds as efficient heterogeneous electrocatalysts for water oxidation", 19<sup>th</sup> International Symposium on Intercalation Compounds (19<sup>th</sup> ISIC), Assisi (Italy), 28<sup>th</sup> May – 1<sup>st</sup> June 2017
- Schools
- National Schools for PhD Students "New materials and sustainable energy", organized by the Italian Chemical Society, Bressanone, 13<sup>th</sup> – 16<sup>th</sup> July 2015

## Publications

Fagiolari, L.; Scafuri, A.; Costantino, F.; Vivani, R.; Nocchetti, M.; Macchioni, A.; "A Ternary Zn-Al-Ir Hydroxalcalite-Like Compound Exhibiting High Efficiency and Recyclability as a Water Oxidation Catalyst", *ChemPlusChem*, **2016**, 81, 1060-1063

Corbucci, I.; Ellingwood, K.; Fagiolari, L.; Zuccaccia, C.; Elisei, F.; Gentili, P.L.; Macchioni, A.; "Photocatalytic Water Oxidation Mediated by Iridium Complexes", *Catalysis Today*, **2016**, DOI: 10.1016/j.cattod.2016.10.030

## Membership references

Member of the Italian Chemical Society (SCI)

## Reference

Prof. A. Macchioni (University of Perugia)

Perugia, 5<sup>th</sup> June 2017

Lucia Fagiolari