



# MARKO ROBIĆ

Born on May 23<sup>th</sup> 1993 in Zagreb, Croatia

## CONTACT

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## PROFILE

- Systematical
- Team player
- Independent
- Supportive
- Enthusiastic
- Presentation skills

## COMPUTER SKILLS

- OriginLab
- MS Office
- Match! (XRPD analysis)
- X'Pert HighScore Plus
- MossWinn (Mössbauer fitting)

## REWARDS

### Dean's award

Dean's award upon completing undergraduate study at the Faculty of Chemical Engineering and Technology

### Poster award

International Conference on the Applications of the Mössbauer Effect (ICAME 2019), Dalian, China

## EDUCATION

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### PhD in Chemistry

Faculty of Science, University of Zagreb, Croatia

Course: Inorganic and Structural Chemistry

July 2018 – September 2023 (expected)

Topic: The influence of chromium (III) on the synthesis and properties of nanostructured iron oxides

### Master in Applied Chemistry

Faculty of Chemical Engineering and Technology,

University of Zagreb, Croatia

September 2015 - July 2017

## WORK EXPERIENCE

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### Ruder Bošković Institute - Research assistant

July 2018 - ongoing

Laboratory for Synthesis of New Materials

- Participated in 1 project investigating hematite doping with selected metal cations

## SKILLS

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- Metal oxide preparation by electrospinning
- Hydrothermal synthesis
- Mössbauer spectroscopy- measurement and fitting
- Field Emission SEM - authorized user
- Other characterizations: FT-IR (ATR) and UV-Vis spectroscopy, XRPD
- Photocatalysis experiments

## CONFERENCES

### Poster presentations

- 5th Mediterranean Conference on the Applications of the Mössbauer Effect (**MECAME- 2019**), 19-23 May 2019, Montpellier, France
- International Conference on the Applications of the Mössbauer Effect (**ICAME 2019**), 01-06 September 2019, Dalian, China
- Mössbauer Spectroscopy from Magnetic Nanoarchitectures to Environmental Science: A Symposium in Honor of Dr. Jean Marc Greneche, American Chemical Society (**ACS Fall 2021**), Atlanta, GA, USA, 2021, online
- International Conference on the Applications of the Mössbauer Effect (**ICAME 2021**), 05-10 September 2021, Brasov, Romania
- 27th Croatian Meeting of Chemists and Chemical Engineers (**27HSKIKI 2021**), 05-08 October 2021, Veli Lošinj, Croatia

### Oral presentations

- International Symposium on the Industrial Applications of the Mössbauer Effect (**ISIAME 2022**), 10-16 September 2022, Olomouc, Czech Republic

## HOBBIES

- Gym
- Jogging
- Singing (choir)
- Playing tambura (Croatian instrument)
- Dancing
- Reading

## LANGUAGES

- English B2

## PUBLICATIONS

### As a co-author (before PhD study)

- 1) Tuneable solid-state emitters based on benzimidazole derivatives: Aggregation induced red emission and mechanochromism of D- $\pi$ -A fluorophores, Ema Horak, Marko Robić, Aleksandra Šimanović, Vilko Mandić, Robert Vianello, Marijana Hranjec, Ivana Murković Steinberg, *Dyes and Pigments* 162 (**2019**) 688–696, <https://doi.org/10.1016/j.dyepig.2018.10.069>
- 2) Facile Mechanochemical Anion Substitution in Cyclopalladated Azo-Benzenes, Alen Bjelopetrović, Marko Robić, Ivan Halasz, Darko Babić, Marina Juribašić Kulcsár and Manda Čurić, *Organometallics* 38 (**2019**) 4479–4484, <https://doi.org/10.1021/acs.organomet.9b00626>

### As the main author (during the PhD study)

- 1) Synthesis and properties of nanostructured Cr-doped hematite fibres, Marko Robić, Mira Ristić, Marijan Marciuš, Stjepko Krehula, Svetozar Musić, *Chem Pap* 74 (**2020**) 4345–4353, <https://doi.org/10.1007/s11696-020-01247-6>
- 2) Electrospun Ti-doped haematite fibres and their properties, Marko Robić, Mira Ristić, Marijan Marciuš, Stjepko Krehula and Svetozar Musić, *J Nanopart Res* 22 (**2020**) 358, <https://doi.org/10.1007/s11051-020-05090-4>
- 3) Synthesis of nanocrystalline eskolaite via grimaldiite, Marko Robić, Mira Ristić, Stjepko Krehula, Marijana Jurić, Svetozar Musić, *Chem Pap* 75 (**2021**) 735–741, <https://doi.org/10.1007/s11696-020-01338-4>
- 4) Forced hydrolysis of FeCl<sub>3</sub> solutions in the presence of Cr<sup>3+</sup> ions, Marko Robić, Mira Ristić, Erno Kuzmann, Zoltan Homonnay, Stjepko Krehula, Svetozar Musić, *J. Phys. Chem. Solids* 156 (**2021**) 110166, <https://doi.org/10.1016/j.jpcs.2021.110166>
- 5) Forced hydrolysis of FeCl<sub>3</sub> solutions in the presence of guanylurea phosphate, Marko Robić, Mira Ristić, Stjepko Krehula, Svetozar Musić, *Colloids and surfaces. A, Physicochemical and engineering aspects*, 634 (**2022**), 128047, 10, <https://doi.org/10.1016/j.colsurfa.2021.128047>
- 6) Forced hydrolysis of FeCl<sub>3</sub> solutions in the presence of Cr<sup>3+</sup> ions and Hexamethylenetetramine, Marko Robić, Mira Ristić, Stjepko Krehula, Ernő Kuzmann, Zoltán, Homonnay, Svetozar Musić, *Journal of Materials Research*, accepted for publication on 19 September **2022**.

## PROJECTS

Formation and properties of 1D  $\alpha$ -Fe<sub>2</sub>O<sub>3</sub> nanostructures doped with selected metal ions, March 2017 – December 2021, Ruđer Bošković Institute, Croatian Science Foundation