

**NADICA MALTAR STRMEČKI, PhD** (scientist number: 225204)

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### **Education**

- 1997 B.Sc. Physics, Faculty of Science, Physics Department, University of Zagreb, Croatia
- 2002 Master of Natural Sciences (Medical Physics), Faculty of Science, Physics Department, University of Zagreb, Croatia
- 2005 Ph.D. of Natural Science, Faculty of Science, Physics Department, University of Zagreb, Croatia

### **Employment**

- 1998 – 2011 Faculty of Veterinary medicine, University of Zagreb, Zagreb
- 2014 – 2015 Senior Scientist, Martin-Luther-Universität Halle-Wittenberg, Institut für Chemie, Physikalische Chemie, Halle, Germany
- 2011 - current Ruđer Bošković Institute, Zagreb

### **Research grants and awards:**

**2015- current:** EURADOS member (The European Radiation Dosimetry Group) - WG9 Retrospective dosimetry

**2014- current:** Croatian MC member COST, CM1306 Understanding Movement and Mechanism in Molecular Machines, leader deputy of WG3

**2014-current:** Researcher Croatian Science Foundation: „Bioinspired Materials - Formation Mechanisms and Interactions“

**2014- current:** Researcher Croatian Science Foundation: „Low-temperature molecular dynamics of systems exhibiting lattice disorder probed by ESR“

**2013: Principal investigator:** “The study of parity violation related to homochirality by high frequency EPR spectroscopy” on Physical Department of the Universität Osnabrück, Osnabrück, Njemačka, DAAD scholarship for experienced researchers

**Supervision of doctoral and postdoctoral students:** Mentor on 5 diploma thesis and 2 doctoral dissertations (one defended in 2013 and one planned by the end of 2017)

### **Research profile**

The main interest is the field of biophysics and medical physics focused on application of electron paramagnetic resonance spectroscopy for identification and characterisation of organic radicals induced by different pathological states.

**Publications:** 20 CC publications, 121 citations; Selected publications listed below:

1. Kurzbach, D., Vanas, A., Flamm, A. G., Tarnoczi, N., Kontaxis, G., **Maltar Strmecki**, N., Widder, K., Hinderberger, D. & Konrat, R. (2016). Detection of correlated conformational fluctuations in intrinsically disordered proteins through paramagnetic relaxation interference. *Physical Chemistry Chemical Physics* **18**, 5753-5755. (Q1)
2. Saric, I., Jokic, M., Rakvin, B., Kveder, M. & **Maltar-Strmecki, N.** (2014). The effect of thermal treatment of radiation-induced EPR signals of different polymorphic forms of trehalose. *Applied Radiation and Isotopes* 83, 41-46.(Q1)
3. **Maltar-Strmečki, N.**, Ljubić-Ber, B., Laškaj, R., Aladrović, J. & Džaja, P. (2013). Effect of the gamma radiation on histamine production, lipid peroxidation and antioxidant parameters during storage at two different temperatures in sardine (*Sardina pilchardus*). *Food Control* 34, 132-137. (Q1)
4. Matković, I., **Maltar-Strmečki, N.**, Babić-Ivančić, V., Dutour Sikirić, M. & Noethig-Laslo, V. (2012). Characterisation of  $\beta$ -tricalcium phosphate-based bone substitute materials by electron paramagnetic resonance spectroscopy. *Radiation Physics and Chemistry* 81, 1621-1628. (Q1)