

CURRICULUM VITAE

PERSONAL INFORMATION

Name: **Jan Havlík**

Nationality: Czech

Date of birth: 19/08/1985

E-mail: jan@havlik.cz



WORK EXPERIENCE

2010 – present Graduate student
Synthetic Nanochemistry Group, Institute of Organic Chemistry and Biochemistry,
Academy of Sciences of the Czech Republic, Flemingovo nam. 2, Prague 6, Czech
Republic;
www.uochb.cz

2015 – present Assistant
Department of Education and Human Sciences, The University of Chemistry and
Technology, Prague 6, Czech Republic;
www.vscht.cz

EDUCATION AND TRAINING

2010 – present Ph.D. degree
Department of Inorganic Chemistry, Faculty of Science, Charles University in
Prague, Czech Republic
▪ Nanotechnology, Material science, Synthetic and medicinal chemistry, Nuclear
chemistry

2008 – 2010 Master degree (cum laude)
Department of Inorganic Chemistry, Faculty of Science, Charles University in

Prague, Czech Republic

- Synthetic inorganic and organic chemistry, Coordination chemistry, Nuclear chemistry

2005 – 2008 Bachelor degree (cum laude)

Department of Inorganic Chemistry, Faculty of Science, Charles University in Prague, Czech Republic

- Synthetic inorganic and organic chemistry, Coordination chemistry

Additional courses Additional pedagogical studies (Chemistry teacher qualification course)

Academic Centre for Students Activities (ACSA) courses:

- Project management I
- Communication and argumentation I
- Evaluation in education
- Academic legislation

SPECIAL PERSONAL SKILLS

Teaching, mentoring and education activities

- Mentor at Summer School for Young Chemists, Bestvina, Czech Republic (annually from 2005 to present)
- Chief leader at Summer School for Youngest Chemists and Biologist, Bestvinka, Czech Republic (annually from 2015 to present)
- Co-author of Correspondence Seminar Inspired by Chemical Topics (KSICHT) (Educative correspondence seminar for high school students)
- External editor of Technet.cz (Science and technology news server) Science communication: Český rozhlas 2, Neuron Foundation, Skaut (magazine), AFO Olomouc
- Organizer of Teaching Evaluation at Faculty of Science, Charles University, Prague (2008–2013)

Research fellowships

- 2011–2012 Case Western Reserve University, Cleveland, USA (Dr. Steinmetz)
9 weeks – (Study of nanodiamond distribution *in vitro* on human cancer lines and *in vivo* on mouse model)

LIST OF PUBLICATIONS

- A. Havlik, J.;** Petrakova, V.; Rehor, I.; Petrak, V.; Gulka, M.; Stursa, J.; Kucka, J.; Ralis, J.; Rendler, T.; Lee, S.-Y.; Reuter, R.; Wrachtrup, J.; Ledvina, M.; Nesladek, M.; Cigler, P.; Boosting Nanodiamond Fluorescence: Towards Development of Brighter Probes. *Nanoscale* **2013**, *5*, 3208–3211. IF = 7.4
- B.** Rehor, I.; Lee, K. L.; Chen, K.; Hajek, M.; **Havlik, J.;** Lokajova, J.; Masat, M.; Slegerova, J.; Shukla, S.; Heidari, H.; Bals, S.; Steinmetz, N. F.; Cigler, P.; Plasmonic Nanodiamonds: Targeted Core-Shell Type Nanoparticles for Cancer Cell Thermoablation. *Adv. Healthcare Mater.* **2015**, *4*, 460–468. IF = 5.1
- C.** Stursa, J.; **Havlik, J.;** Petrakova, V.; Gulka, M.; Ralis, J.; Zach, V.; Pulec, Z.; Stepan, V.; Zargaleh, S. A.; Ledvina, M.; Nesladek, M.; Treussart, F.; Cigler, P. Mass Production of Fluorescent Nanodiamonds with a Narrow Emission Intensity Distribution. *Carbon* **2016**, *96*, 812–818. IF = 6.3
- D. Havlik, J.;** Raabova, H.; Gulka, M.; Petrakova, V.; Krecmarova, M.; Masek, V.; Lousa, P.; Stursa, J.; Boyen, H.-G.; Nesladek, M.; Cigler, P.; Benchtop Fluorination of Fluorescent Nanodiamonds on a Preparative Scale: Toward Unusually Hydrophilic Bright Particles. *Adv. Funct. Mater.* **2016**, *26*, 4134–4142. IF = 12.1
- E. Havlik, J.;** Kucka, J.; Raabova, H.; Petrakova, V.; Stepan, V.; Zlamalova Cilova, Z.; Kucera, J.; Hruby, M.; Cigler, P.; Extremely rapid irradiation of nanoparticles with ions generated in situ by a nuclear reaction – **manuscript submitted**
- F.** Balek, L.; Buchtova, M.; Foldynova-Trantirkova, S.; **Havlik J.;** Varecha, M.; Turner, S.; Vesela, I.; Klimaschewski, L.; Claus, P.; Trantirek, L.; Cigler, P.; Krejci, P.; Nanodiamonds

as artificial proteins: regulation of a cell signalling system using picomolar solutions of inorganic nanocrystals – **manuscript submitted**

- G.** Rehor, I.; Raabova, H.; **Havlik, J.**; Fiserova, A.; Richter, J.; Turner, S.; Van Tendeloo, G.; Stursa, J.; Petrakova, V.; Dai, L.; Cigler, P.; Rounded monodisperse nanodiamonds: properties and mass production – **manuscript in preparation**

OTHER RELATED PUBLICATIONS

- H.** Slegerova J., Rehor I., **Havlik J.**, Raabova H., Muchova E., Cigler P. Nanodiamonds as Intracellular Probes for Imaging in Biology and Medicine.; *Intracellular Delivery II. Fundamental Biomedical Technologies*, Prokop, A., Iwasaki, Y., Harada, A. (Eds.), 2014, Vol. 7, Dordrecht: Springer Netherlands; 363-401.
- I.** Rehor, I., Slegerova, J., **Havlik, J.**, Raabova, H., Hyvl, J., Muchova, E., Cigler, P. Nanodiamonds: Behavior in Biological Systems and Emerging Bio-applications; *Carbon Nanomaterials for Biomedical Applications*, Zhang, M., Naik, R. R., Dai, L. (Eds.), Springer International Publishing, 2016, 319–361.
- J.** Neburkova, J., Vavra, J., Raabova, H., Pramanik G., **Havlik, J.**, Cigler, P. Nanodiamonds embedded in shells; *Nanodiamonds. Advanced Material Analysis, Properties and Applications*, Arnault, J.-C. (Ed.), Elsevier, 2017, 339–363.