
**PERSONAL
INFORMATION**

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Center for Space and Habitability
University of Bern
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EMPLOYMENT

Feb. 2019 – present, *PostDoc*, Center for Space and Habitability, Bern, Switzerland
Geochemical cycles in rocky exoplanets

July 2010 – Aug. 2012, *Analyst*, Nomura, Mumbai, India
Product development and maintenance for global equities trade monitoring tools

May 2009 – July 2009, *Developer*, IBM, Bangalore, India
Software development for the hardware verification of IBM PowerPC computers

May 2008 – July 2008, *Trainee*, Omega Electronics, Jaipur, India
Development of a RFID-based educational training kit and demonstration of a sales video

May 2007 – June 2007, *Trainee*, TATA Power, Mumbai, India
Analysis of the pressure-temperature calibration process of the transmitters of power station

EDUCATION

Sep. 2014 – Dec. 2018, Ph.D., Exogeoscience, University of Amsterdam, The Netherlands
Thesis: Diving deep into rocky exoplanets

Sep. 2012 – July 2014, M.Sc., Astronomy & Astrophysics, KU Leuven, Belgium
Thesis: The interior structure of super-Earths

Aug. 2006 – July 2010, B.Tech., Electronics Engineering, IIT Kharagpur, India
Thesis: s-MAC protocol for Wireless Sensor Networks

DISTINCTIONS

July 2014, Graduated M.Sc. degree with *magna cum laude*, KU Leuven

July 2010, Graduated B.Tech. degree with *Honours*, IIT Kharagpur

Apr. 2006, Secured 99.9 percentile among 0.5 million candidates in all-India engineering entrance examinations, IIT-JEE and AIEEE

**PUBLICATIONS
(PEER-REVIEWED,
FIRST-AUTHOR)**

Hakim, K., et al., Geochemistry of the inorganic carbon cycle on rocky exoplanets (in preparation).

Hakim, K., van den Berg, A., Vazan, A., Höning, D., van Westrenen, W., Dominik, C. (2019), Thermal evolution of rocky exoplanets with a graphite outer shell, *Astronomy & Astrophysics* 630, A152.

Hakim, K., Spaargaren, R., Grewal D.S., Rohrbach A., Brendt J., Dominik, C., van Westrenen, W. (2019), Mineralogy, structure and habitability of carbon-enriched rocky exoplanets: A laboratory approach, *Astrobiology* 19, 7.

Hakim, K., van Westrenen, W., Dominik, C. (2018), Capturing the oxidation of silicon carbide in rocky exoplanetary interiors, *Astronomy & Astrophysics* 618, L6.

Hakim, K., Rivoldini, A., Van Hoolst, T., Cottenier, S., Jaeken, J., Chust, T., Steinle-Neumann, G. (2018), A new ab initio equation of state of hcp-Fe and its application to the interior structure and mass-radius relation of rocky super-Earths, *Icarus* 313, 61–78.

SELECTED CONFERENCE TALKS	Sep. 2019, European Planetary Science Congress, Geneva, Switzerland Apr. 2017, Formation and Dynamical Evolution of Exoplanets, Aspen, Colorado, USA Mar. 2017, the 48th Lunar and Planetary Science Conference, Houston, Texas, USA May 2016, the 71st Netherlands Astronomy Conference, Nunspeet, The Netherlands Apr. 2016, the 13th Netherlands Geology Congress, Veldhoven, The Netherlands May 2015, Exoplanet Conference, Lund, Sweden
COMPUTATIONAL SKILLS	<i>Languages/Software:</i> Python, Shell scripting, Java, MySQL, C, Fortran90, Mathematica, MATLAB
TEACHING/ SUPERVISION EXPERIENCE	<i>Teacher</i> for Planetary Science (Exoplanets lecture), MSc (2018) <i>Primary Supervisor</i> for Dieke Beentjes, BSc (2018), Rob Spaargaren, BSc (2016) <i>Teaching Assistant</i> for Interstellar & Circumstellar Matter, MSc (2015–2017)
ADVANCED TRAINING COURSES	July 2016, New Directions in Planet Formation, Lorentz Center, Leiden, The Netherlands Oct. 2015, Application of X-ray metrology for material science research, Enschede, The Netherlands Mar. 2015, the 45th Saas-Fee course on From Protoplanetary Disks to Planet Formation, Swiss Society for Astrophysics & Astronomy, Les Diablerets, Switzerland
SERVICE/ ORGANIZATIONAL WORK	Sep. 2016 – Sep. 2017, <i>PhD Representative</i> , PhD-PostDoc Council, API Institute for Astronomy, University of Amsterdam May 2015, <i>Organizer</i> , Planetary and Exo-Planetary Science Network (NWO-PEPSci) PhD-PostDoc Meeting, University of Amsterdam Sep. 2012 – July 2014, <i>Student Representative</i> , Permanent Education Committee, MSc in Astronomy and Astrophysics, KU Leuven
SCIENCE COMMUNICATION/ OUTREACH	May 2019, Public science talk in the Astronomy on Tap event, Bern, Switzerland Mar. 2017, Participated in FameLab Amsterdam – a science communication workshop and competition Aug. 2016, Gave a science talk for bachelor students at University of Los Andes, Bogotá, Colombia
FORMER RESEARCH EXPERIENCE	July – Aug. 2014, Nicolaus Copernicus Astronomical Center, Warsaw, Poland Data reduction pipeline of <i>Canada-France-Hawaii-Telescope</i> for <i>SuperWASP</i> exoplanets Sep. – Oct. 2013, Mercator Telescope, Roques de las Mouchachos Observatory, La Palma, Spain Spectroscopic study of three <i>Kepler</i> planet candidates Mar. – June 2013, Belgian Institute for Space Aeronomy, Brussels, Belgium Study of Earth’s magnetopause based on the data from <i>Ampere/IRM</i> and <i>Cluster</i> spacecrafts