

## JOB OFFER

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| Position in the project:                      | Technician                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Scientific discipline:                        | chemical technology, chemistry                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Job type (employment contract/stipend):       | employment contract (half-time job)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Number of job offers:                         | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Remuneration/stipend amount/month             | 1 950 PLN of full remuneration cost                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Position starts on:                           | 01.10.2020                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Maximum period of contract/stipend agreement: | 36 months                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Institution:                                  | AGH University of Science and Technology; Faculty of Geology, Geophysics and Environmental Protection / Cracow                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Project leader:                               | Prof. Wojciech Franus                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Project title:                                | <p><i>Fly ashes as the precursors of functionalized materials for applications in environmental engineering, civil engineering and agriculture</i></p> <p><b>Project is carried out within the TEAM-NET programme of the Foundation for Polish Science</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Project description:                          | <p><i>This TEAM-NET joint project assumes using fly ashes as a precursors for the synthesis of novel functionalized materials with the structure of not only zeolites, but also mesoporous silica materials and metal-organic frameworks (MOFs). Then produced materials will be tested for possible applications in agriculture, civil and environmental engineering. With the implementation of new technologies of coal combustion and flue gas treatment, new types of fly ashes with increased content of unburned carbon (up to 30%) have been produced. Such byproducts will be used in this project for the synthesis of novel zeolite-carbon composites. Previous work related to the use of this type of fly ashes was focused on the separate production of zeolites or activated carbons, which did not fully exploit the potential of the above-mentioned byproducts. Their use as a precursor to the synthesis of a zeolite-carbon-vermiculite composite in this project will also pave the way for developing a novel material to replace vermiculite raw materials in agricultural applications.</i></p> |
| Key responsibilities include:                 | <ol style="list-style-type: none"> <li>1. Using of advanced instrumental methods (GC-MS, HPLC-MS) for determination sorbates concentration and characterizing sorbent materials.</li> <li>2. Helping with sorption experiments of organic and inorganic compounds on the porous materials, from the technical point of view.</li> <li>3. Tracking current research trends in the scientific literature.</li> <li>4. Helping with preparing scientific articles for international journals.</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Profile of candidates/requirements:           | <ol style="list-style-type: none"> <li>1. The candidate must have the PhD diploma from chemistry.</li> <li>2. The candidate must know the methods which will be used for concentration of sorbates analysis (GC-MS, HPLC-MS).</li> <li>3. The candidate must have experience acquired in conducting analyzes in an accredited laboratory.</li> <li>4. The candidate must have knowledge of quality management systems confirmed by certificates.</li> <li>5. The candidate must know English (both speaking and writing) enabling</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

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|                                                                             | <i>communication.</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Required documents:                                                         | <ol style="list-style-type: none"> <li>1. <i>Written application for the competition.</i></li> <li>2. <i>Curriculum vitae including:</i></li> <li>3. <i>Copies of obtained diplomas.</i></li> <li>4. <i>Documented information about completed courses and trainings.</i></li> <li>5. <i>Other activities.</i></li> </ol>                                                                                                                                                                                                            |
| Please submit the following documents to:                                   | <a href="mailto:bajda@agh.edu.pl">bajda@agh.edu.pl</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Application deadline:                                                       | 29.07.2020                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| For more details about the position please visit (website/webpage address): | <a href="https://www.fnp.org.pl/oferta_pracy">https://www.fnp.org.pl/oferta_pracy</a><br><a href="http://wbia.pollub.pl/pl/praca">http://wbia.pollub.pl/pl/praca</a><br><a href="http://www.wggios.agh.edu.pl/pracownicy">http://www.wggios.agh.edu.pl/pracownicy</a><br><a href="https://www.biol.uw.edu.pl/pl/index.php?option=com_content&amp;view=category&amp;layout=blog&amp;id=148&amp;Itemid=317">https://www.biol.uw.edu.pl/pl/index.php?option=com_content&amp;view=category&amp;layout=blog&amp;id=148&amp;Itemid=317</a> |
| Appeal                                                                      | <p><i>Possible appeals against the decision should be sent to prof. Wojciech Franus (project coordinator, <a href="mailto:w.franus@pollub.pl">w.franus@pollub.pl</a>) no later than 7 days after receiving the decision, i.e. the date of results announcement. In the protest an explicit justification have to be included.</i></p>                                                                                                                                                                                                |