

To Whom It May Concern:

I knew Dr. Arsentev while he was a PhD student at Institute of Silicate Chemistry of Russian Academy of Sciences (ISC RAS). Throughout his study and work at ISC RAS, I had the opportunity to work with him on several research projects. His experience, advice, and comments improved the quality of work, and his deep knowledge of physics is indispensable for the publication of peer-reviewed articles.

Currently, Maxim is collaborating with our group on a project that study different materials for battery applications. To write an article on TiS_3 Mg-ion cathode material was completely his idea: all the work was on him. His expertise in convex hull construction, studying ionic conductivity phenomena, structures relaxation, electronic structures and obtaining discharge curves using Quantum-ESPRESSO was a huge advantage to our collaboration. In another project, he investigated the stability of the multiphase system Mg doped $\text{Li}_2\text{MnSiO}_4$ cathode. The task of studying the materials of cathodes of electrochemical batteries is multifaceted, requiring from the researcher a high scientific erudition, a variety of skills and great attention in the performing of tasks. One more of his work is devoted to investigation of the possibility of creation of nanostructures on graphene and carbon nanotubes by placing single atoms into the single vacancies in graphene. Nonmagnetic behaviour of Ni and magnetic of Au was found. It was also found that germanium significantly changes the electronic structure and enhances quantum effects in graphene. His contribution to this work is also prevailing. I see him as an independent researcher who is able to independently find the actual research topics and competently perform tasks. Maxim is always eager to learn, displayed great initiative, a good team player and has an excellent character. He has a positive experience of cooperation with staff from New Mexico State University (USA), California Polytechnic State University (USA) and CELLS ALBA (Spain).

Maxim also has 2 years teaching experience: he taught advanced chemistry labs at ISC RAS for students from Saint Petersburg Electrotechnical University "LETI" and Saint Petersburg State Institute of Technology

I believe that Maxim would be an asset to your department, as he combines enthusiasm and good level of professionalism in teaching and research.

Please do not hesitate to contact me if you need any further information.

Sincerely yours,

Dr. Andrey Chibisov



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