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Letter of Recommendation for Aleksei Aksimentiev

Dear Sirs,

Aleksei Aksimentiev was one of the best PhD students in my group. I have offered him an associate professor position in my group after his second postdoc, therefore I can recommend him for a professorship position without any reservation. He is truly exceptional and I found my collaboration with him very rewarding personally, educationally and in terms of physics ultimately produced. Half of the papers which we have published together were prepared by him and half of the ideas were his own. The list of topics, which we have studied together, is long: single chain statistics near the bulk phase transitions in polymer melts and blends, diffusion on periodic surfaces, phase diagram of gradient copolymers, application of the topology and geometry of surfaces to the analysis of morphological patterns in phase separating/ordering systems, spinodal decomposition in polymer systems etc. He is very gifted in programming and computer simulations. We have published so far 13 papers together. We have prepared two review articles (one contracted by *Advances in Chemical Physics* and one by the *Progress in Polymer Science*) and published one paper in *Physical Review Letters*.

He completed his PhD in two and a half years at the age of 24. It is remarkable since he had to change the subject from nuclear physics and quantum field theory to the application of statical physics to soft matter problems. He speaks polish language fluently despite the fact that at the time of arrival to Poland he didn't know polish at all. During his stay in our group he studied polymers, liquid crystals, microemulsions and solutions of surfactants, stochastic processes applied to biological problems etc. He has ideas about making real experiments. He finds physics of living matter fascinating (Gerard Toulouse coined the name physics of living matter instead of biophysics) and we

spent weeks discussing it in our lab.

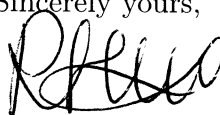
Our lab had collaboration with R&D Center of Mitsui Chemical Inc. and it was my intention to offer him an insight into world at the frontier of science and technology. I believed that such experience would be profitable for him and our lab in the future. That is why he chose his first postdoc in Japan. It is worth noting that in the Mitsui lab he had to build a cluster of workstations for himself from the scratch. As far as I know he solved some technological problems studied in the group there. He is a coauthor of the patent application in Japan.

He is a very good teacher and during the recent years I have learned much from him. He makes very good presentation (both in polish and in english). In my opinion he is one of the best young theorists in the physics of soft matter and now in living matter and I am sure that he is a very good candidate for the tenure track position.

He is truly versatile: he studied quantum field theory, statistical physics, soft matter and biophysics. I have no doubt that his presence in your department will be very stimulating and rewarding for him and for the department.

Aleksei is also a very warm and friendly person and that is why I can also recommend him as a person. I am sure that prof. Klaus Schulten (his current boss) will share my opinion about him.

Sincerely yours,

A handwritten signature in black ink, appearing to read 'R Holyst', written in a cursive style.

Robert Holyst

Professor of Chemistry
Head of Department