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Ref: Habilitation of Martin Setvin

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To Whom It May Concern:

I greatly enjoyed reading the habilitation thesis of Martin Setvin and despite being familiar with nearly all the publications included, it was very useful to read them again as a package. The study of titanium dioxide (TiO_2) has a long history in surface science due to its varied applications and its position as a benchmark oxide material. Martin's group in Vienna has pioneered many of the leading studies into this material and it is clear that in his time there he has played an important role in the activities in this area.

With respect to the specific requirements of a habilitation thesis:

Evaluation of the candidate's pedagogical activity

The candidate has taught three courses alone, and 4 further courses in partnership. This is a very good standard for a researcher of his scientific age.

Evaluation of the candidate's scientific, professional or artistic activity

His research has focused on the properties of the anatase surface of TiO_2 looking at the electronic properties and role of defects (publications A1, A2, A4 and A5), molecular adsorption (publications A3, A8, A9, A10, A11, A12 and A13) and an important methodological work on surface preparation (publication A14). This is supported by investigations on the more familiar rutile surface (publications A6 and A7). These publications are all in very good journals, with Martin the first author in 12 of them. In isolation this is an excellent record for a junior researcher, but the wider list in his CV shows his contribution to other important studies.

Wider context of the candidate's activity

The collected papers demonstrate an outstanding combination of scanning probe microscopy (SPM) techniques at the cutting edge of atomically resolved studies. Martin performed nearly all the experiments and a systematic attention to reliable methodology is clearly shown. The level of the publications strongly emphasizes the novelty of the work included in the thesis. There is no question that Martin has made new and important contributions to the study of TiO_2 . Martin's direct contribution to the works included in this thesis unambiguously demonstrate his mastery of SPM and the analytical skills necessary to get to the science. In terms of development, there is clear evidence of

looking beyond the basic measurement techniques in several of the papers, and I am sure Martin will build on this to establish his own unique approach.

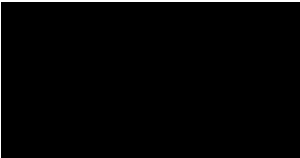
Authorship and co-authorship of patents

The candidate has one patent pending, which is already impressive for a researcher in basic physics.

Overall evaluation of scientific, pedagogical and other activities

In conclusion, I fully support the habilitation request, and find the candidate sufficiently qualified.

Yours sincerely,



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