



To: Prof. Dušan Galisek, DSc.
Director
Centre for Functional and Surface Functionalized Glass
Alexander Dubček University of Trenčín
Študentská 2, 911 50 Trenčín
Slovak Republic

Your reference: 001-FG-2021-033

28st February 2022

Dear Professor Dušan Galisek:

I am writing to offer my report about habilitation thesis of José Joaquin Velázquez García.

The development of transparent oxyfluoride glass-ceramics doped with rare-earths is a topic of great importance based on its current and future use on photonic applications. The approach to the synthesis of these glass-ceramics through two types of processing as different as glass melting and the sol-gel method is of great interest. The debate in the scientific community between the differences in chemical structure and properties of the materials prepared by these processing methods is well known. It really is a complex debate based on the profound differences between both methods. The habilitation thesis presented by the candidate places special emphasis on this debate, which gives rise to significant benefit. The thesis shows how materials with good properties can be obtained using both methods; and more importantly, it shows how to capitalize on the strengths of each processing method to improve the material properties. The experience accumulated by the candidate in the alternative use of these two very different processing methods is a key point in his career. This experience will allow him to approach the design and development of other materials from different points of view, which will result in a greater chance of success.

I know the candidate since he was hired for several years in the Glass Department of the Institute of Ceramics and Glass (CSIC), Madrid (Spain). Although, I did not work directly with him, I did follow his work on transparent oxyfluoride glass-ceramics as it was closely related to the sol-gel technique.

In summary, the candidate is a very self-motivated researcher and has built up a wealth of experience in the glass melting and sol-gel fields for synthesis of glass-ceramics, with a very good publication list and presentations at national and international meetings. He has proved that his



experience in sol-gel and glass melting can open new perspectives and directions for the synthesis of new glass-ceramics. I strongly support Velázquez García's application.

Yours Faithfully

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