

# 博士学位論文 審査結果の要旨

芝浦工業大学大学院 理工学研究科 博士（後期）課程  
博士学位論文審査委員会

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氏 名	Pinmangkorn Sunsanee
論文題目	Low-cost routs and optimal processing conditions for mass production of REBa <sub>2</sub> Cu <sub>3</sub> O <sub>y</sub> bulk superconductors
〔論文審査の要旨〕	
<p>On August 2, 2021, the final PhD defense was successfully conducted by zoom for the candidate Ms. Pinmangkorn Sunsanee. The final defense examination consisted of 1 hour ppt presentation followed by a Q&amp;A section and an evaluation of the examination results. 27 members including the defense committee members have attended as audience. The Q&amp;A section had been completed successfully, and all committee members were satisfied since their suggestions and advice given in the first defense has been incorporated in the final thesis. Further, several other questions, especially ones related to RE-123 production, its cost and clarifications in microstructure, were asked by the committee and audience. They are i) the (Gd,Y,Er)-211 in the chapter 6, why is it larger than the Y-211 in the chapter 3, ii) In chapter 4, Er-211 secondary phase plays a crucial role in the trapped field value. How will it work in the binary (Y,Er)123 system, iii) how will you control the further uniformity of microstructure in the final sample, iv) how did you reduce the PtO<sub>2</sub> for reduce the bulk cost, v) why is there a peak effect in the bulk Y-123 superconductor, vi) how did you calculated the oxygen content in (Gd,Y,Er)123 material, vii) what are the alternatives to reduce the Pt and increase the small secondary phase particles in RE-123 matrix etc.,</p> <p>The audience as well as committee members were satisfied by the student's response. Eventually, all PhD committee members were satisfied. As a result, everyone had accepted to <b>pass</b> the final PhD defense.</p>	