

## Associate Prof. Chm. Dr. Kar Ban Tan (FRSC, AMIC, YSN-ASM)

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Dr. Kar Ban Tan is currently an associate professor at the Department of Chemistry, Faculty of Science, Universiti Putra Malaysia. His research interests encompass on the synthesis and characterisation of functional electroceramics using different spectroscopic and physical techniques. Dr. Tan has spearheaded various research projects and published more than 100 scientific papers and conference proceedings. He also serves as editorial members and reviewers for many journals and involves actively in other professional services, e.g. conferences, workshops, mobility and outreach programmes.



### Patents

1. "Dielectric pyrochlores in bismuth magnesium tantalate ternary system" K.B. Tan, C.C. Khaw, Z. Zaini and P.Y. Tan. Grant No. My-173509-A- PI2012003059
2. "A magnesium diboride dielectric material and a method for producing thereof" S.K. Chen, K.Y. Tan, A. Shaari and K.B. Tan. Patent filed 2017-P1201770195

### Book Chapter

1. "STEM outreach by Malaysian young scientists" Chapter 7 in STEM Education in Malaysia, Mohd Basyaruddin Abdul Rahman and Tan Kar Ban, ISBN 978-967-14585-4-9, Department of Higher Education, 2018.

### Selected Recent Publications

1. "Synthesis and Electrical Properties of Zn-doped Bismuth Copper Tantalate Pyrochlores" M.P. Chon, **K.B. Tan**, C.C. Khaw Z. Zainal, Y. H. Taufiq-Yap, S.K. Chen and P. Y. Tan, International Journal of Applied Ceramic Technology, 2016, 4, 718–725 (IF: 1.762; Q2)
2. "Phase Equilibria in the Bi<sub>2</sub>O<sub>3</sub>-CuO-Nb<sub>2</sub>O<sub>5</sub> Ternary System" M.P. Chon, **K.B. Tan**, C.C. Khaw Z. Zainal, Y. H. Taufiq-Yap, S.K. Chen and P. Y. Tan, Ceramics International, 2017, 43, 4930-4936. (IF: 3.45; Q1)
3. "Subsolidus solution and electrical properties of Sr-substituted bismuth magnesium niobate pyrochlores" N. A. M. Dasin, **K. B. Tan**, C. C. Khaw, Z. Zainal and S. K. Chen, Ceramics International, 2017, 43, 10183-10191. (IF: 3.45; Q1)
4. "Frequency dependence of dielectric properties of ex situ MgB<sub>2</sub> bulks" KY Tan, **KB Tan**, KP Lim, H Jumiah, SA Halim, SK Chen, Journal of Materials Science: Materials in Electronics, 2017, 1-10. (IF: 2.195; Q2)
5. "Doping mechanisms and electrical properties of bismuth tantalate fluorites" K. Firman, **K.B. Tan**, C. C. Khaw, Z. Zainal, Y.P. Tan and S. K. Chen, Journal of Materials Science 2017, 52:10106–10118. (IF: 3.442; Q1)
6. "Influence of Nb<sub>2</sub>O<sub>5</sub> substitution on the structural and electrical properties of Bi<sub>3</sub>TaO<sub>7</sub> ceramics" K. Firman, **K.B. Tan**, C. C. Khaw, Z. Zainal, Y.P. Tan and S. K. Chen, Materials Chemistry and Physics, 2018, 214, 464-471. (IF: 2.781; Q2)
7. "Doping mechanisms and dielectric properties of Ca-doped bismuth magnesium niobate pyrochlores" N. A. M. Dasin, **K. B. Tan**, C. C. Khaw, Z. Zainal, O.J. Lee and S. K. Chen, Materials Chemistry and Physics, 2019, 12258. (IF: 2.781; Q2)
8. "Comparative Study on AC Susceptibility of YBa<sub>2</sub>Cu<sub>3</sub>O<sub>7-δ</sub> Added with BaZrO<sub>3</sub> Nanoparticles Prepared via Solid-State and Co-Precipitation Method" Nurhidayah Mohd Hapipi, Jee Khan Lim, Soo Kien Chen, Oon Jew Lee, Abdul Halim Shaari, Mohd Mustafa Awang Kechik, Kean Pah Lim, **Kar Ban Tan**, Masato Murakami, Muralidhar Miryala, Crystals, 2019, 9 (12), 655-667. (IF: 2.061; Q2)
9. "Doping mechanisms and impedance study of Ba-substituted bismuth magnesium niobate pyrochlores" N. A. M. Dasin, **K. B. Tan**, C. C. Khaw, Z. Zainal and S. K. Chen Journal of Electroceramics, 2019, 43 (1-4), 41-50. (IF: 1.966; Q2)
10. "Non-ferroelectric relaxor properties of BMN, Bi<sub>3.55</sub>Mg<sub>1.78</sub>Nb<sub>2.67</sub>O<sub>13.78</sub> pyrochlore" PY Tan, **K.B. Tan**, CC Khaw, Z Zainal, SK Chen, OJ Lee, MP Chon, Journal of Alloys and Compounds, 2020, 152576. (IF: 4.175; Q1)
11. "Novel cadmium substituted barium zinc niobate perovskites: phase formation, structural and impedance studies" K Kannan, **KB Tan**, Z Zainal, CC Khaw, SK Chen, OJ Lee, Results in Physics, 2020, 103374. (IF: 4.019; Q1)
12. "Novel pyrochlores in the Bi<sub>2</sub>O<sub>3</sub>-Fe<sub>2</sub>O<sub>3</sub>-Ta<sub>2</sub>O<sub>5</sub> (BFT) ternary system: synthesis, structural and electrical properties" FA Jusoh, **KB Tan**, Z Zainal, SK Chen, CC Khaw, OJ Lee, Journal of Materials Research and Technology, 2020, 9:5, 11022-11034. (IF: 5.289 ;Q1)

13. "Investigation of structural and dielectric properties of subsolidus bismuth iron niobate pyrochlores" FA Jusoh, **KB Tan**, Z Zainal, SK Chen, CC Khaw, OJ Lee, Journal of Asian Ceramic Societies, 2020, 8:3, 957-969. (IF: 2.653; Q1)
14. "Doping mechanisms and dielectric properties of Ca-doped bismuth magnesium niobate pyrochlores" NAM Dasin, **KB Tan**, CC Khaw, Z Zainal, OJ Lee, SK Chen, Materials Chemistry and Physics, 2020, 242, 122558. (IF: 3.408; Q2)
15. "Enhancement of critical current density for MgB<sub>2</sub> prepared using carbon-encapsulated boron with co-addition of Dy<sub>2</sub>O<sub>3</sub> and La<sub>2</sub>O<sub>3</sub>" Nurhidayah Mohd Hapipi, Muralidhar Miryala, Soo Kien Chen, Sai Srikanth Arvapalli, Masato Murakami, Mohd Mustafa Awang Kechik, **Kar Ban Tan**, Oon Jew Lee, Ceramics International, 2020, 46:14, 23041-23048. (IF: 3.830 ; Q1)