

Publications from Prof. Wei-Hsing Tuan

June, 2017~2022

1. Guan-Ren Chen, Wei-Hsing Tuan, Bonding microwave absorbing ferrites to thermal conducting copper, *Inter. J. Applied Ceramic Technology*, 19, 1001-1008 (2022).
2. Hsieh, M., Wang, CY, Wu, CJ, Chen, YC, Wu, SC, Tuan, WH, Lai, PL (2022). "Strontium sintered calcium sulfate bone graft for enhancing osteogenesis in a rat femoral defect model." *Materials Today Communications* 30 (2022) 103050.

**2021**

3. Ying-Cen Chen, Wei-Hsing Tuan, Po-Liang Lai, Transformation from calcium sulfate to calcium phosphate in biological environment, *J. Mater. Sci.: Mater. Med.* 32, 146, (2021).
4. Heng-Yi Lin, Yan-Kai Huang, Pei-Yi Hsu, Wei-Hsing Tuan, Makio Naito, Sintering of degradable bone substitutes at room temperature, *Ceram. Inter.* 47, 21714-21720 (2021).
5. Ching-Chien Chiang, Ming-Kai Hsieh, Chi-Yun Wang, Wei-Hsing Tuan, Po-Liang Lai, Cytotoxicity and Cell response of Preosteoblast in Calcium Sulfate-Augmented PMMA Bone Cement, *Biomedical Materials*, 16, 055014.
6. Ying-Cen Chen, Pei-Yi Hsu, Wei-Hsing Tuan, Chih-Yi Chen, Chia-Jung Wu, Po-Liang Lai, Long-term in vitro degradation and in vivo evaluation of resorbable bioceramics, *J. Mater. Sci: Mater. Med.*, 32, 13 (2021).
7. Hao-Yu Chang, Ying-Cen Chen, Wei-Hsing Tuan, Sseu-Pei Hwang, Li-Kwan Chang, Chia-Jung Wu, Chih-Yi Chen, Po-Liang Lai, Biphasic bone graft prepared by a gel-foaming technique, *Ceramics International* 47, 7805-7813 (2021).
8. Hao-Yu Chang, Ying-Cen Chen, Wei-Hsing Tuan, Chia-Jung Wu, Po-Liang Lai, Attachment and migration of cells on porous bone graft, *Journal of American Ceramic Society*. 104, 1649-1654 (2021).
9. Hao-Yu Chang, Wei-Hsing Tuan, Po-Liang Lai, Biphasic ceramic bone graft with biphasic degradation rates, *Materials Science & Eng., C* 118, 111421 (2021). (CiteScore at 2020 11.4)

**2020**

10. Hao-Yu Chang, Ying-Cen Chen, Pei-Yi Hsu, Wei-Hsing Tuan, Akira Kondo, Takahiro Kozawa, Makio Naito, Strengthening bioceramic through an approach of powder processing, *Advanced Powder Technology*, 31, 4180-4186 (2020). (impact factor @ 2021: 4.217; Eng. Chem.: N/M=30/143)

11. Ying-Cen Chen, Pei-Yi Hsu, Wei-Hsing Tuan, Po-Liang Lai, "From phase diagram to the design of strontium-containing carrier", *J. Asian Ceram. Soc.*, 8(3) 677-684 (2020). (impact factor @ 2021: 2.653; *Mater. Sci. :Ceramics: N/M=6/28*)
12. Pei-Yi Hsu, Hsiao-Chun Kuo, Man-Lin Syu, Wei-Hsing Tuan, Po-Liang Lai, "A head-to-head comparison of the degradation rate of resorbable bioceramics", *Materials Science and Engineering C* 106, 110175 (2020). (impact factor @ 2021: 5.880; *Mater. Sci. Biomater.: N/M=8/38*)

## 2019

13. Chung-Ya Tsao, Wei-Hsing Tuan, Kuei-Chih Feng, "Effect of milling on the anisotropic grain growth in a sintered  $\text{Ba}_5\text{Nb}_4\text{O}_{15}$  specimen and its effect on microwave dielectric properties", *Inter. J. Appl. Ceram. Tech.*, 16, 2094-2100 (2019).
14. Yi-Ting Su, Pei-Yi Hsu, Chung-Ya Tsao, Wei-Hsing Tuan, Effect of the Second Phase on the Microwave Dielectric Properties of Strontium Titanate, *J. Materials Scienc: Materials in Electronics*, 30(19) 17654-17660 (2019).
15. Tsung-Te Chou, Wei-Hsing Tuan, Kun-Lin Lin, Interface evaluation on the brazed system of AlN-Ticasil-Graphite, *International Journal of Applied Ceramic Technology*, 16 (6), 2236-2244 (2019).
16. Pei-Yi Hsu, Hsiao-Chun Kuo, Wei-Hsing Tuan, Shao-Ju Shih, Makio Naito, Po-Liang Lai, "Manipulation of the degradation behavior of calcium sulfate by the addition of bioglass", *Progress in Biomaterials*, 8, 115-125 (2019).
17. Ching-Ti Kao, Wei-Hsing Tuan, Shu-Wei Chang, Thickness variation for electrolyte of planar solid oxide fuel cell, *J. Of Asian Ceramic Societies*, 7[1] 31-35 (2019).

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18. Hsiu-Ching Hsu, Man-Ping Chang, Wei-Hsing Tuan, Po-Liang Lai, "Effect of physical and chemical characteristics on the degradation behavior of calcium sulfates pellets", *Ceramics International*, 44, 8934-8939 (2018).
19. Ching-Ti Kao, Wei-Hsing Tuan, Che-Yuan Liu, Shih-Chieh Chen, Effect of iron oxide coloring agent on the sintering behavior of dental yttria-stabilized zirconia, *Ceram. Inter.*, 44, 4689-4693 (2018).
20. Wei-Hsing Tuan, Tsung-Te Chou, I-Cheng Kao, Shao-Yu Wang, Biing-Jyh Wen, "Thermal diffusivity of graphite paper and its joint with alumina substrate", *Journal of European Ceramic Society* 38[1], 187-191(2018).
21. Tseng-Wen Lian, Akira Kondo, Takahiro Kozawa, Megumi Akoshima, Haruka Abe, Takahiro Ohmura, Wei-Hsing Tuan, Makio Naito, "Effect of hydrophobic nano-

silica on the thermal insulation of fibrous fumed silica compacts”, J. Of Asian Ceramic Society 10.1080/21870764.2018.1465659 (2018).

## 2017

22. Tsung-Te Chou, Wei-Hsing Tuan, Hiroshi Nishikawa, Biing-Jyh Weng, “Brazing graphite to aluminum nitride for thermal dissipation purpose”, Adv. Eng. Mater. 1600876 (2017).
23. Man-Ping Chang, Hsiu-Ching Hsu, Wei-Hsing Tuan, Po-Liang Lai, “A feasibility study regarding the potential use of calcium sulfate anhydrite as a bone void filler”, Journal of Medical and Biological Engineering, 37, 879-886 (2017).
24. Chun-Ting Yeh, Wei-Hsing Tuan, Accelerating the oxidation rate of AlN substrate through the addition of water vapor, Journal of Asian Ceramic Societies, 5 [12], 381-384 (2017).
25. Hsiu-Ching Hsu, Chun-Ting Yeh, Wei-Hsing Tuan, “Heat capacity of Al<sub>2</sub>O<sub>3</sub>-NiAl composites, a key parameter for thermal management”, Ceramics International, S705-S709 (2017).
26. Chung-Ya Tsao, Kuei-Chih Feng, Wei-Hsing Tuan, “Mechanical-chemical interaction during milling of Ba<sub>5</sub>Nb<sub>4</sub>O<sub>15</sub> hexagonal perovskite and its influence on microwave performance”, Ceramics International, 43, S312-S316 (2017).

## Patents

1. 段維新, 許沛衣, 陳慧蘭, 骨替代物自由成形方法及其複合材料, I650144 (2019)  
(生物可吸收骨填充材及離子釋出對骨生長之機理研究 / MOST-107-2221-E002-073).
2. Wei-Hsing Tuan, Pei-Yi Hsu, Hui-Lan Chen, Composition material and method for free formin, US 10,741,176 B2 (2019) (生物可吸收骨填充材及離子釋出對骨生長之機理研究 / MOST-107-2221-E002-073)