


Requests for Collaboration

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<p>Research Interests</p> <ul style="list-style-type: none"> ● Ceramics and composites for medical and dental application. ● Ceramics and composites for water purification. ● Novel synthesis and evaluation of nano-,micro-structured ceramics and composites 	
<p>Creative Achievements in The Application of New and Existing Science and Technology</p>	
<p>(1) Novel bioactive cement (calcium phosphate cement, CPC) CPC has been widely used for bone defect repairs, as it can meet to the requirement of minimally invasive surgical treatment. However, there remains a drawback such as poor bone resorption, and a CPC with new liquid containing biodegradable polysaccharides has been successfully developed.</p> <p>(2) Mesoporous silica / Calcium phosphate composite as bone filler along with protein carrier. MPS compacts and MPS coated calcium phosphate granules have been prepared using spark plasma sintering and rf-magnetron sputtering to improve protein loadings dramatically.</p> <p>(3) Layered double hydroxides (LDH) for fresh breathing Novel LDHs has high capacity of malodorous materials adsorption, which can be removed very quickly. The novel LDHs are safe and meet biocompatibility by in vitro and in vivo evaluations.</p> <p>(4) Nano iron oxide / HAp particle for thermoresponsive drug release Novel nano iron oxide / HAp particles has been developed for magnetic hyperthermia combined with pharamacotherapy.</p>	
<p>Technology (Product, Process, Device, Service etc.) That I Want to Request for Collaboration</p>	
<ul style="list-style-type: none"> ● Biomolecular dynamics analysis in bioceramics ● Dosage forming technology ● Resin composite technology for inclusion of advanced ceramics. 	
<p>A List of 5 Key Publications</p>	
<ul style="list-style-type: none"> • Kinetic modelling of cytochrome c adsorption on SBA-15, <u>Y. Yokogawa</u>, R. Yamauchi, A. Saito, Y. Yamato, T. Toma, <i>Bio-medical Mater. Eng.</i>, 28, 37-46 (2017). • Thermoresponsive drug release from Polymer Coated Nano Iron Oxide embedded in Hydroxyapatite, <u>Y. Yokogawa</u>, T.Yokomizo, A.Shidhido, H.K.Varma, <i>Key Eng. Mater.</i>,720, 21-24 (2017). • VSC Adsorption Capability of Layered Double Hydroxide Containing Iron, <u>Y. Yokogawa</u>, S. Namba, H. Sano, S. Namba, K. Fujii, Y. Morita, M. Hotta, Y. Doi, <i>J. Biomimetics, Biomater. Biomed. Eng.</i>, 26, pp. 93-96 (2016). • Sntesis and Properties of Non-rigid calcium phosphate cement containing chitosan, Yoshiyuki Yokogawa, Tomohiro Murata, Hiroki Yamada, Kentaro Fujii, Kentaro Tone, Yuji Okada, <i>Phosphorous Research Bulletin</i>, 31, 38-43 (2016). • Layered double hydroxide ceramic materials and its H₂S incorporation through topochemical reactions, <u>Y.Yokogawa</u>, H.Sano, I. Kishida, <i>J.Ceram.Soc. Jpn</i>, 121(9), 788-791(2013). 	