

Recent publications:

- (1) **M.R. Gherase** and D.E.B. Fleming, Probing trace elements in human tissue with synchrotron radiation, *Crystals*, **10**(1), 12, (2020) <https://doi.org/10.3390/cryst10010012>
- (2) **M.R. Gherase** and **S. Al-Hamdani**, Improvements and reproducibility of an optimal grazing-incidence position method to L-shell x-ray fluorescence measurements of lead in bone and soft tissue phantoms, *Biomedical Physics and Engineering Express*, **4** 065024 (2018) <https://doi.org/10.1088/2057-1976/aae300>
- (3) **M.R. Gherase** and **S. Al-Hamdani**, A microbeam grazing-incidence approach to L-shell x-ray fluorescence measurements of lead in bone and soft tissue phantoms, *Physiological Measurement*, **39** 035007 (2018) <https://doi.org/10.1088/1361-6579/aaad5a>
- (4) **M.R. Gherase**, R. Feng, D.E.B. Fleming, Optimization of L-shell X-ray fluorescence detection of lead in bone phantoms using synchrotron radiation, *X-ray Spectrometry*, **46**: 537-547 (2017) <https://doi.org/10.1002/xrs.2792>
- (5) E.D. Desouza, **M.R. Gherase**, D.E.B. Fleming, D.R. Chettle, J.M. O'Meara, F.E. McNeill, Performance comparison of two Olympus InnovX handheld X-ray analyzers for feasibility of measuring arsenic in skin *in vivo* – Alpha and Delta models, *Applied Radiation and Isotopes*, **123**: 82-93 (2017) <https://doi.org/10.1016/j.apradiso.2017.02.029>
- (6) **M.R. Gherase** and **A.F. Vargas**, Effective X-ray beam size measurements of an X-ray tube and polycapillary X-ray lens system using a scanning X-ray fluorescence method, *Nuclear Instruments and Methods in Physics Research B*, **395**: 5-12 (2017) <https://doi.org/10.1016/j.nimb.2017.01.045>