Poster session 4 – Friday 8 July

P4.092 **Anti-reflective coatings for scintillating bolometers**

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Large ton-scale Neutrinoless Double Beta Decay ($0\nu\beta\beta$) experiments require extremely low background environments in order to obtain the sensitivity required to probe the inverted hierarchy. Adding a second channel for scintillation or Cherenkov light would improve particle identification for actively rejecting background events. This light would be collected via semiconductor wafers covered with anti-reflective coatings. These coatings maximize light absorption. In this talk, I will discuss the coating optimization regarding material and structure, as well as tests performed at the MIT testing facility utilizing scintillating $ZnMoO_4$ crystals grown by RMD in Boston. In addition, I will discuss projections for possible sensitivities of next generation $0\nu\beta\beta$ searches that use dual channel light-phonon readouts.