

CEM-725 - Tópicos Especiais em Cerâmicas: Light, Colors, And Glasses

Tentative lecture plan

March 5th	Tuesday	10 -12:00	Interaction of light to glass and materials: refraction, reflection transmission, scattering, absorption cut off filter glasses, Ruby glasses	2 h
March 6th	Wednesday	10 -12:00	glass colors CT, d-d transitions part 1 Basics of optical spectroscopy, measurements, sample preparation, evaluation, assignments, deconvolution	2h
March 6th	Wednesday	14-17:00	UV-Vis lab Measurement, identification, Quantification	3h
March 7th	Thursday	10 -12:00	d-d transitions part 2: spectroscopic terms Lambert Beer, selection rules Orgel diagram, Tanabe Sugano	2h
March 7th	Friday	10 -12:00	Applications: from impurities to laser glass: CT, Urbach tail, band gap, f-f transitions, Raman fluorescence, phosphorescence, laser glass,	2h