Email inquiries for analytical services

In order to inform a more nuanced and targeted reply, CharFac requires detailed information preferably by e-mail. We strive to eliminate back & forth / corrective email, and confusion in general, from correspondence so as not to waste public resources. (If you feel a conversation is better, please recognize that we will need to type electronic notes to serve the same purpose, and this effort will need to be included in the bill for services.)

CharFac’s analytical professionals need to know everything that you know about your sample(s): elemental/chemical content, layered structure (and content therein) including thicknesses or interdiffusion distances if pertinent (if instead a bulk material, please state so) or other characteristic length scales (e.g., inclusion sizes), other structural characteristics (e.g., single crystal, polycrystalline, amorphous), sample properties (hard/soft, conductive/insulating, clear/opaque, for both film and substrate if applicable), sample form (e.g., planar/wafer solid, powder, liquid suspension), sample size and number. And relatedly any formal data you might already have, such as images (light microscopy, SEM), Tg values from DSC, structural info from light scattering, profilometry, etc.

We also need to understand the level of knowledge that you have of our methods, whether ones you explicitly seek to use or other potentially applicable methods listed on our web site – with one end of the spectrum of knowledge being black box (no understanding of how the method works) and the other being expert (PhD + postdoc + many years of career hands-on usage in advanced modes, the case of our staffing). Please describe your level of knowledge along this spectrum in as much detail as you can, perhaps dependent on the various applicable techniques or technique groups: electron microscopy/microanalysis, X-ray/ion scattering, IR/visible/UV/X-ray/γ-ray spectroscopy, proximal probes (AFM, nanoindentors, etc.), or other surface/thin-film analyses (e.g., contact angle, ellipsometry; see www.charfac.umn.edu/instruments/).

Finally we need to know (in part based on the previous paragraph) how you wish to engage us – again along a possible spectrum, one end being providers of a minimal service (you give us samples, tell us what you want done, we give you raw data such as spectra, images, scattering patterns, etc.) and the other end being full analytical consultants whereby we explore and suggest techniques – possibly spanning multiple groups as listed above and/or involving custom methodologies. (We welcome clients that fall along this entire spectrum.)