

Structure

This category includes visual observable characteristics, arrangements, and spatial relationships of a visual feature that aid in assessing biogenic / abiogenic origin, irrespective of geochemistry or scale. This content was initially developed from geologic phenomena expected on a rocky planet, though measurement parameters (MPs) should apply to any visually observable target. Measurement parameters (MPs) include fundamental attributes of biogenic features and abiotic mimics, plus key emergent features of structures (i.e., stromatolites, microbially induced sedimentary structures) that result from microbe-mineral interactions. Emergent features have attributes that individual components of those features do not have. MPs considered here are size distribution, spatial distribution, shape/form, orientation, and texture / fabric of features of interest. These measurable parameters were adapted from classic geological terminologies and designed to be useful and “agnostic” for a visual unknown feature. The description of structural (visual) attributes included here avoids the use of terms based on (bio)genetic classifications. Often, companion LDKB entries are included in the “Chemistry” category with a link provided in the relevant “Structure” argument to describe their full value as potential biosignatures.