

W0290

Crystallization and Preliminary X-ray Analysis of the Laccase from *Coriolopsis gallica*. De la Mora, E., Resines, A., Valderrama, B., Horjales, E. and Rudiño-Piñera, E. IBT-UNAM, Cuernavaca, Mexico.

Laccases belong to the blue oxidases family. These are multi-copper enzymes catalyzing the four-electron reduction of molecular oxygen to water with concomitant one-electron oxidation of the substrate. We have crystallized laccase from *C. gallica* at different pHs; at its optimum for activity (pH 4 and 4.5) and around its inactivation point (pH 6.5 to 8). Crystals at low pHs grown using the hanging drop method with a mother liquor containing 5% PEG 1K, 5% PEG 8K, Mes 50mM at 277 K. While crystals at pH 7 grown with 13% PEG 1K, 13% PEG 8K and HEPES 50mM also at 277 K. Two data-sets have been collected. In the first one a diffraction pattern at 1.8 Å was obtained but with a mosaicity of 2° (see figure). From the second crystal we got a pattern at 3.0 Å resolution, with completeness of 60% and R_{merge} of 24%. Crystals belong to space group $P2_12_12_1$ with cell dimensions of $a=56.4$, $b=85.9$, $c=152.1$. High mosaicity and low resolution appear to be consequences of the sensibility of the crystals to changes in temperature. Although the completeness, clear positive peaks are visible for the four coppers in the catalytic center of the enzyme. Currently, we are carefully dehydrating crystals. While crystals seem to be stable, it is still necessary to corroborate any change over the diffraction quality.