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Pyroxenes on Mars as seen by OMEGA/Mars Express; areas of high concentrations and global distribution, an update.

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The imaging spectrometer OMEGA onboard Mars Express allowed the identification of areas of high concentration in Low Calcium Pyroxene (LCP) and High Calcium Pyroxene (HCP). We used the Modified Gaussian Algorithm to map both LCP and HCP absorptions bands. This technique allowed us to show that the LCP rich areas typically correspond to outcrops of small spatial extension located in the ancient cratered terrain. The HCP rich terrains are spatially more extended and typically correspond to areas covered by dark sand. We were also able to map the global distribution of HCP and LCP, showing that HCP is highly concentrated in the ancient cratered terrain, and that LCP, though not as concentrated, is also present in this region with a significant band depth. New observations acquired by OMEGA over the last 6 months allowed us to update this vision of the Martian pyroxene composition.