

Echography of the Early Universe by Observing Primordial Molecules

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In the range of redshifts $1000 > z > 10$ the matter in the Universe is expected to be neutral and cold: high density regions characterize the loci of galaxy formation . These conditions are ideal for molecular formation. The interaction between CBR photons and molecules (resonant scattering) may be the most important signature in the millimetric and submillimetric region of the spectrum.

We discuss the role of LiH as a tracer of high density regions in primordial structures and the possibility of detecting it toward primordial galaxies by high spatial resolution observations of the redshifted LiH lines.

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