

## **Preliminary Density and Speed of Sound Measurements in Monoethanolamine with CO<sub>2</sub>**

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The European Commission's Green Deal aims to achieve carbon neutrality by 2050, with carbon capture, utilisation and storage (CCUS) named as a priority. CCUS begins by removing CO<sub>2</sub> from emissions before release; however, CCUS is not 100 % emission-free, since some products based on utilised CO<sub>2</sub> will reemit CO<sub>2</sub> over time and CO<sub>2</sub> slip is a relevant factor for all capture and transport technologies.

In this context, the MetCCUS Project ("Metrology Support for Carbon Capture Utilisation and Storage" – 21GRD06), within the European Partnership on Metrology, will contribute to the develop of technologies that are required to meet the targets of the Green Deal, supporting the development of key documentary standards, specifications and regulations. The metrological measurement techniques developed during the Project will help the CCUS industry to obtain reliable results and comply with specifications, becoming carbon neutral by the year 2050 to limit the effects of climate change. Within the MetCCUS Project, experimental speed of sound measurements have been carried out for binary mixtures composed of 30% (by weight) aqueous monoethanolamine (MEA) with different concentrations of CO<sub>2</sub> for temperatures between (293 and 393) K and pressures up to 35 MPa. These results will be useful to update the coefficients of the EOS-CG formulation.