### LIST OF ABBREVIATIONS

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>BS3</td>
<td>Bharat Stage-3</td>
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<tr>
<td>BS4</td>
<td>Bharat Stage-4</td>
</tr>
<tr>
<td>B10</td>
<td>10% Biodiesel Blended Diesel</td>
</tr>
<tr>
<td>BMEP</td>
<td>Break Mean Effective Pressure</td>
</tr>
<tr>
<td>CNG</td>
<td>Compressed Natural Gas</td>
</tr>
<tr>
<td>CFV</td>
<td>Critical Flow Venturi</td>
</tr>
<tr>
<td>CLD</td>
<td>Chemiluminescent</td>
</tr>
<tr>
<td>CPC</td>
<td>Condensation Particle Counter</td>
</tr>
<tr>
<td>CVS</td>
<td>Constant Volume Sampling System</td>
</tr>
<tr>
<td>CI</td>
<td>Compression Ignition</td>
</tr>
<tr>
<td>CO</td>
<td>Carbon Monoxide</td>
</tr>
<tr>
<td>CO₂</td>
<td>Carbon Dioxide</td>
</tr>
<tr>
<td>CRT</td>
<td>Continuously Regenerative Trap</td>
</tr>
<tr>
<td>CAFE</td>
<td>Clean Air For Europe</td>
</tr>
<tr>
<td>CR-PF</td>
<td>Continuously Regenerative Particulate Filter</td>
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<tr>
<td>CR-DF</td>
<td>Continuously Regenerative Diesel Filter</td>
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<tr>
<td>CCR-DPF</td>
<td>Continuously Regenerative Diesel Particulate Filter</td>
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<tr>
<td>DPF</td>
<td>Diesel Particulate Filter</td>
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<tr>
<td>DPM</td>
<td>Diesel Particulate Matter</td>
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<tr>
<td>DISI</td>
<td>Direct Injection Spark Ignition</td>
</tr>
<tr>
<td>DMA</td>
<td>Differential Mobility Analyzer</td>
</tr>
<tr>
<td>DOC</td>
<td>Diesel Oxidation Catalyst</td>
</tr>
<tr>
<td>DGN</td>
<td>Geometric Number Mean Diameter</td>
</tr>
<tr>
<td>Dp</td>
<td>Particle Diameter</td>
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<tr>
<td>DME</td>
<td>Di Methyl Ether</td>
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<tr>
<td>EEPS</td>
<td>Engine Exhaust Particle Sizer</td>
</tr>
<tr>
<td>EOI</td>
<td>End Of Injection</td>
</tr>
<tr>
<td>FAME</td>
<td>Fatty Acid Methyl Esters</td>
</tr>
<tr>
<td>Acronym</td>
<td>Description</td>
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<td>---------</td>
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<tr>
<td>FID</td>
<td>Flame Ionization Detector</td>
</tr>
<tr>
<td>FSC</td>
<td>Fuel Sulfur Content</td>
</tr>
<tr>
<td>FCO</td>
<td>Unprocessed Rape Oil</td>
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<tr>
<td>FAME</td>
<td>Fatty Acid Methyl Esters</td>
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<tr>
<td>GC-HPLC</td>
<td>Gas Chromatography High Pressure Liquid Chromatography</td>
</tr>
<tr>
<td>GUI</td>
<td>Graphic User Interface</td>
</tr>
<tr>
<td>GRPE</td>
<td>Working Group On Energy And Pollution</td>
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<tr>
<td>GTL</td>
<td>Gas To Liquid</td>
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<tr>
<td>GDI</td>
<td>Gasoline Direct Injection</td>
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<tr>
<td>G10</td>
<td>10% Gas To Liquid Blended Diesel</td>
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<tr>
<td>HEPA</td>
<td>High Efficiency Particulate</td>
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<tr>
<td>HDDE</td>
<td>Heavy Duty Diesel Engine</td>
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<tr>
<td>IOF</td>
<td>Inorganic Fractions</td>
</tr>
<tr>
<td>JME</td>
<td>Jatropha Methyl Ester</td>
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<tr>
<td>LPG</td>
<td>Liquid Petroleum Gas</td>
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<tr>
<td>MID cycle</td>
<td>Modified Indian Driving Cycle</td>
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<tr>
<td>NMHC</td>
<td>Non Methane Hydrocarbons</td>
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<tr>
<td>NEDC</td>
<td>New European Driving Cycle</td>
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<tr>
<td>NDIR</td>
<td>Non-Dispersive Infra-Red</td>
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<tr>
<td>NOx</td>
<td>Oxides of Nitrogen</td>
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<tr>
<td>PM</td>
<td>Particulate Matter</td>
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<tr>
<td>PAH</td>
<td>Poly Aromatic Hydrocarbons</td>
</tr>
<tr>
<td>PM$_{2.5}$</td>
<td>Particulate Matters Up To 2.5 µm</td>
</tr>
<tr>
<td>PM$_{10}$</td>
<td>Particulate Matters Up To 10 µm</td>
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<tr>
<td>PN</td>
<td>Particle Number</td>
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<tr>
<td>PS</td>
<td>Particle Size</td>
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<tr>
<td>PMP</td>
<td>Particulate Measurement Program</td>
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<tr>
<td>PI</td>
<td>Positive Ignition</td>
</tr>
<tr>
<td>PFI</td>
<td>Port Fuel Injection</td>
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<tr>
<td>RME</td>
<td>Rapeseed Methyl Ester</td>
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<tr>
<td>SMPS</td>
<td>Scanning Mobility Particulate Sizer</td>
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<tr>
<td>SOI</td>
<td>Start Of Injection</td>
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<td></td>
<td>xxxi</td>
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<tr>
<td>Abbreviation</td>
<td>Description</td>
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<tr>
<td>SOXHELT</td>
<td>Soxhelt Extraction</td>
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<tr>
<td>SOF</td>
<td>Soluble Organic Fractions</td>
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<tr>
<td>SOVC</td>
<td>Semi Volatile Organic Compounds</td>
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<tr>
<td>SCF</td>
<td>Soot Catalyst Filter</td>
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<tr>
<td>STP</td>
<td>Standard Temperature 273.2 K and Pressure of 101.33 kPa</td>
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<tr>
<td>THC</td>
<td>Total Hydrocarbons</td>
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<tr>
<td>UNECE</td>
<td>The United Nations Economic Commission for Europe</td>
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<tr>
<td>UFP</td>
<td>Ultrafine particle</td>
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<tr>
<td>VOC</td>
<td>Volatile Organic Compounds</td>
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<tr>
<td>VPR</td>
<td>Volatile Particle Remover</td>
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<tr>
<td>WP.29</td>
<td>World Form For Harmonization Of Automotive Regulations</td>
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<tr>
<td>WHO</td>
<td>World Health Organization</td>
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