

## 10. Acronyms

Acronym	Definition
<b>1D</b>	One Dimensional
<b>3D</b>	Three Dimensional
<b>A/C</b>	Air-Conditioning
<b>ABR</b>	Advanced Battery Research
<b>AC</b>	Alternating current
<b>ACEC</b>	Advanced Combustion and Emissions Control
<b>AEC</b>	Advanced Engine Combustion
<b>AEO</b>	Annual Energy Outlook
<b>AER</b>	All-electric range
<b>AEV</b>	All-electric vehicle
<b>AFCI</b>	Advanced Fuel Cycle Initiative
<b>AFDC</b>	Alternative Fuels Data Center
<b>AFR</b>	Air to Fuel Ratio
<b>AFV</b>	Alternative Fuel Vehicle
<b>Ag</b>	Silver
<b>Ah</b>	Ampere-hour
<b>AHD</b>	Advanced Hybrid Drives
<b>AHSS</b>	Advanced high-strength steel
<b>AKI</b>	Anti-Knock Index
<b>Al</b>	Aluminum
<b>ALD</b>	Atomic Layer Deposition
<b>AMPO</b>	Association of Metropolitan Planning Organizations
<b>AMR</b>	Annual Merit Review
<b>AMT</b>	Air maintenance technology
<b>ANL</b>	Argonne National Laboratory
<b>ANSI</b>	American National Standards Institute
<b>APEEM</b>	Advanced Power Electronics and Electric Machines Program
<b>APRF</b>	Advanced Powertrain Research Facility (ANL)
<b>APS</b>	Advanced photon source
<b>APU</b>	Auxiliary Power Unit
<b>AQMD</b>	Air Quality Management Districts
<b>ARK</b>	Abuse Reaction Kinetics
<b>ARL</b>	Army Research Lab
<b>ARPA-E</b>	Advanced Research Projects Agency - Energy
<b>ARRA</b>	American Recovery and Reinvestment Act
<b>ASC</b>	Ammonia slip catalyst
<b>ASTM</b>	American Society for Testing and Materials
<b>ATR</b>	Attenuated Total Reflectance
<b>Au</b>	Gold
<b>AVFL</b>	Advanced Vehicle/Fuel/Lubricants

Acronym	Definition
<b>AVFL-18</b>	Project 18 under Advanced Vehicle/Fuel/Lubricants of the Coordinating Research Council
<b>AVTA</b>	Advanced Vehicle Testing Activity
<b>B</b>	Boron
<b>B20</b>	Biodiesel blend of 20% neat biodiesel
<b>BARTA</b>	Berks Area Regional Transport Authority
<b>BATT</b>	Batteries for Advanced Transportation Technologies
<b>BES</b>	DOE Basic Energy Sciences
<b>BEV</b>	Battery electric vehicle
<b>BIM</b>	Bonded Interface Material
<b>BMEP</b>	Brake Mean Effective Pressure
<b>BMS</b>	Battery Management System
<b>BNL</b>	Brookhaven National Laboratory
<b>BP</b>	Bandpass
<b>BSFC</b>	Brake-specific fuel consumption
<b>BSG</b>	Belt-Driven Starter-Generator
<b>BTE</b>	Brake thermal efficiency
<b>C</b>	Carbon
<b>Ca</b>	Calcium
<b>CAD</b>	Computer-aided design
<b>CAE</b>	Computer-aided engineering
<b>CAEBAT</b>	Computer-aided engineering of batteries
<b>CAFE</b>	Corporate Average Fuel Economy
<b>CAMP</b>	Cell Analysis, Modeling, and Prototyping
<b>CAN</b>	Controller Area Network
<b>CARB</b>	California Air Resources Board
<b>CATARC</b>	China Automotive Technology and Research Center
<b>CCC</b>	Co-precipitated CuO <sub>x</sub> , CoO <sub>y</sub> , and CeO <sub>2</sub> catalyst
<b>CD</b>	Charge Depleting
<b>CDC</b>	Conventional diesel combustion
<b>CEC</b>	California Energy Commission
<b>CEI</b>	Cathode electrolyte interphase
<b>CEO</b>	Chief executive officer
<b>CF</b>	Carbon fiber
<b>CFC</b>	Carbon fiber composite
<b>CFD</b>	Computational Fluid Dynamics
<b>CFR</b>	Cooperative Fuel Research
<b>CFTF</b>	Carbon Fiber Technology Facility
<b>CI</b>	Compression ignition
<b>CLEERS</b>	Cross-Cut Lean Exhaust Emission Reduction Simulation
<b>CMAQ</b>	Congestion Mitigation and Air Quality Program
<b>CMC</b>	Carboxymethyl Cellulose
<b>CNG</b>	Compressed natural gas
<b>CNT</b>	Carbon Nanotubes

Acronym	Definition
<b>Co</b>	Cobalt
<b>CO</b>	Carbon Monoxide
<b>CO<sub>2</sub></b>	Carbon Dioxide
<b>COV</b>	Coefficient of variance
<b>CPU</b>	Central processing unit
<b>CPUC</b>	California Public Utilities Commission
<b>Cr</b>	Chromium
<b>CR</b>	Compression ratio
<b>CRADA</b>	Cooperative Research and Development Agreement
<b>CRC</b>	Coordinating Research Council
<b>CS</b>	Charge Sustaining
<b>CSC</b>	Cold Start Concept
<b>CSM</b>	Colorado School of Mines
<b>CSTR</b>	Continually stirred tank reactor
<b>CT</b>	Computed tomography
<b>CTFIP</b>	Central Texas Fuel Independence Project
<b>Cu</b>	Copper
<b>CV</b>	Combustion vessel
<b>CZ</b>	Ceria-zirconia
<b>D3</b>	Downloadable Dynamometer Database
<b>DC</b>	Direct current
<b>DEDOHC</b>	Dioxohexane dicarboxylate
<b>D-EGR</b>	Dedicated-Exhaust Gas Recirculation
<b>DEER</b>	Directions in Engine-Efficiency and Emissions Research Conference
<b>DFT</b>	Density Functional Theory
<b>DGE</b>	Diesel gallon equivalent
<b>DI</b>	Direct Injection
<b>DIC</b>	Digital Image Correlation
<b>DISI</b>	Direct Injection Spark Ignited
<b>DOC</b>	Diesel oxidation catalyst
<b>DOD</b>	Department of Defense
<b>DOE</b>	Department of Energy
<b>DOT</b>	Department of Transportation
<b>DP</b>	Dual-phase steel
<b>DPF</b>	Diesel particulate filter
<b>DQA</b>	Data Quality Act
<b>DSC</b>	Differential Scanning Calorimetry
<b>DSNY</b>	City of New York Department of Sanitation
<b>DSRC</b>	Dedicated Short-Range Communications
<b>DTBP</b>	Di-t-butyl peroxide
<b>DWTP</b>	Dynamic wireless power transfer
<b>Dy</b>	Dysprosium
<b>E0</b>	0 percent ethanol blend with gasoline

Acronym	Definition
<b>E10</b>	10 percent ethanol blend with gasoline
<b>E30</b>	30 percent ethanol blend with gasoline
<b>E85</b>	85 percent ethanol blend with gasoline
<b>EC</b>	Ethylene Carbonate
<b>ECN</b>	Engine Collaboration Network
<b>ECT</b>	Electrochemical-Thermal Coupling
<b>ECU</b>	Engine control unit
<b>EDLC</b>	Electrochemical double-layer capacitors
<b>EDR</b>	Eigenvector dimension reduction
<b>EDS</b>	Energy Dispersive X-ray Spectroscopy
<b>EDV</b>	Electric Drive Vehicle
<b>EE</b>	Energy efficiency
<b>EELS</b>	Electron Energy Loss Spectroscopy
<b>EERE</b>	Energy Efficiency and Renewable Energy
<b>EG</b>	Ethylene glycol
<b>EGR</b>	Exhaust Gas Recirculation
<b>EHN</b>	2-ethylhexyl nitrate
<b>EHN</b>	ethyl hexyl nitrate
<b>EHR</b>	Exhaust heat recovery
<b>EIA</b>	Energy Information Administration
<b>EIS</b>	Electrochemical Impedance Spectroscopy
<b>EPA</b>	Environmental Protection Agency
<b>EPR</b>	Electron Paramagnetic Resonance
<b>EPRI</b>	Electric Power Research Institute
<b>ERC</b>	Engine Research Center
<b>EREV</b>	Extended Range Electric Vehicle
<b>ESS</b>	Energy Storage Systems
<b>EV</b>	Electric vehicle
<b>EVSE</b>	Electric vehicle supply equipment
<b>EXAFS</b>	Extended X-ray Absorption Fine Structure
<b>F</b>	Fluorine
<b>FACE</b>	Fuels for Advanced Combustion Engines
<b>FCG</b>	Full concentration gradient
<b>FCTO</b>	Fuel Cell Technologies Office
<b>FCV</b>	Fuel cell vehicle
<b>FE</b>	Fuel Economy
<b>Fe</b>	Iron
<b>FE</b>	Fuel Efficiency
<b>FE</b>	Finite Element
<b>FEA</b>	Finite Element Analysis
<b>FEC</b>	Fluorinated ethylene carbonate
<b>FFV</b>	Flex-fuel vehicles
<b>FGM</b>	Flamelet generated manifold

Acronym	Definition
<b>FHWA</b>	Federal Highway Administration
<b>FIB</b>	Focused ion beam
<b>FLD</b>	Fluid dynamics
<b>FMEP</b>	Friction mean effective pressure
<b>FOA</b>	Funding Opportunity Announcement
<b>FOT</b>	Field operational test
<b>FSP</b>	Friction Stir Processing
<b>FST</b>	Filter sensing technologies
<b>FSW</b>	Friction Stir Welding
<b>FTIR</b>	Fourier Transform Infrared Spectroscopy
<b>FTMPG</b>	Freight-ton-miles per gallon
<b>FTP</b>	Federal Test Procedure
<b>FY</b>	Fiscal year
<b>GaN</b>	Gallium Nitride
<b>GATE</b>	Graduate Automotive Technology Education
<b>GCEV</b>	Grid-connected electric-drive vehicle
<b>GDCI</b>	Gasoline Direct Compression Engine
<b>GDI</b>	Gasoline direct injection
<b>GDP</b>	Gross domestic product
<b>GE</b>	General Electric
<b>GFR</b>	Glomerular filtration rate
<b>GGE</b>	Gasoline gallon equivalent
<b>GHG</b>	Greenhouse gas
<b>GIS</b>	Geographic Information Systems
<b>GM</b>	General Motors Corporation
<b>GnP</b>	Graphite nano-Platelets
<b>GPF</b>	Gasoline Particulate Filter
<b>GPRA</b>	Government Performance and Results Act
<b>GPS</b>	Global Positioning System
<b>GPU</b>	Graphics Processing Unit
<b>GREET</b>	Greenhouse Gas, Regulated Emissions, and Energy Use in Transportation
<b>GSA</b>	Advanced probing technique
<b>GSF</b>	Generic Speed Form
<b>GTDI</b>	Gasoline Turbocharged Direct Injection
<b>GTI</b>	Gas Technologies Institute
<b>GUI</b>	Graphical user interface
<b>H<sub>2</sub></b>	Hydrogen
<b>HC</b>	Hydrocarbon
<b>HCCI</b>	Homogeneous Charge Compression Ignition
<b>HCMR</b>	High capacity manganese rich
<b>HD</b>	Heavy-duty
<b>HDD</b>	Heavy-Duty diesel
<b>HECC</b>	High efficiency clean combustion

Acronym	Definition
<b>HEDGE</b>	High-Efficiency Dilute Gasoline Engine
<b>HEV</b>	Hybrid electric vehicle
<b>HFET</b>	Highway Fuel Economy Test
<b>HDDT</b>	Heavy heavy-duty diesel truck
<b>HHV</b>	Hydraulic hybrid vehicle
<b>HIL</b>	Hardware in the Loop
<b>HMI</b>	Human-machine interface
<b>HMN</b>	Heptamethyl nonane (a.k.a. cetane, aka hexadecane)
<b>HOV</b>	High-occupancy vehicle
<b>HPC</b>	High Performance Computing
<b>HPD</b>	High power density
<b>HR</b>	High-resolution
<b>HRR</b>	Heat release rate
<b>HRSXRD</b>	High-resolution Synchrotron X-ray Diffraction
<b>HRTEM</b>	high-resolution transmission electron microscopy
<b>HS</b>	High Strength
<b>HTHS</b>	High-temperature, high shear
<b>HV</b>	High voltage
<b>HVAC</b>	Heating Ventilating and Air Conditioning
<b>HVE</b>	High-voltage fluorinated electrolyte
<b>HVM</b>	High-volume Manufacturing
<b>HWFET</b>	Highway Fuel Economy Driving Schedule
<b>IAV</b>	Ingenieurgesellschaft Auto und Verkehr
<b>ICE</b>	Internal combustion engine
<b>ICME</b>	Integrated Computational Material Engineering
<b>ICT</b>	Institute of Chemical Technology
<b>IE</b>	Ion exchange
<b>IL</b>	Ionic Liquids
<b>IMEP</b>	Indicated Mean Effective Pressure
<b>INL</b>	Idaho National Laboratory
<b>IP</b>	Intellectual Property
<b>IQT</b>	Ignition Quality Tester
<b>IR</b>	Infrared
<b>ISFC</b>	Indicated Specific Fuel Consumption
<b>ISO</b>	International Organization for Standardization
<b>ITE</b>	Indicated Thermal Efficiency
<b>ITS JPO</b>	Intelligent Transportation Systems Joint Program Office
<b>JARI</b>	Japan Automotive Research Institute
<b>JCESR</b>	Joint Center for Energy Storage Research
<b>JCI</b>	Johnson Controls, Inc.
<b>K</b>	Potassium
<b>Kn</b>	Knudsen Number
<b>ksi</b>	Kips per square inch

Acronym	Definition
<b>kV</b>	Kilovolt
<b>kW</b>	Kilowatt
<b>kWh</b>	Kilowatt-hour
<b>L</b>	Liter
<b>LANL</b>	Los Alamos National Laboratory
<b>LBNL</b>	Lawrence Berkeley National Laboratory
<b>LCCF</b>	Low-cost carbon fiber
<b>LCD</b>	levelized cost of driving
<b>LCO</b>	Lithium Cobalt Oxide
<b>LD</b>	Light-duty
<b>LEESS</b>	Lower-energy energy storage system
<b>LES</b>	Large Eddy Simulation
<b>LEV</b>	Low Emission Vehicle
<b>LFO</b>	Lithium Iron Oxide
<b>LFP</b>	Lithium Iron Phosphate
<b>LFT</b>	Long fiber thermoplastic
<b>Li</b>	Lithium
<b>Li<sub>2</sub>MnO<sub>3</sub></b>	Lithiated transition metal oxides
<b>LIB</b>	Lithium Ion Battery
<b>LiBF<sub>4</sub></b>	Lithium tetrafluoroborate
<b>LiBOB</b>	Lithium bis(oxalato)borate
<b>LIBS</b>	Laser-induced breakdown spectroscopy
<b>LIC</b>	Lithium ion capacitor
<b>LIF</b>	Laser-induced fluorescence
<b>LII</b>	Laser-Induced Incandescence
<b>Li-ion</b>	Lithium Ion
<b>LiPF<sub>6</sub></b>	Effective electrolyte salt for lithium-ion battery
<b>LiPON</b>	Lithium Phosphorous Oxynitride
<b>LiTFSI</b>	Lithium Bis(Trifluoromethanesulfonyl)Imide
<b>LL</b>	Layered lithium
<b>LLC</b>	Layered-layered spinel composite
<b>LLFC</b>	Lean Lifted-Flame Combustion
<b>LLNL</b>	Lawrence Livermore National Laboratory
<b>LMNO</b>	Ni-substituted manganese spinel oxides
<b>LMO</b>	Lithium Manganese Oxide
<b>LMR</b>	Lithium Manganese Rich
<b>LNG</b>	Liquefied natural gas
<b>LNT</b>	Lean NO <sub>x</sub> Trap
<b>LPG</b>	Liquefied petroleum gas
<b>LPL</b>	Low-pressure loop
<b>LSPI</b>	Low-speed pre-ignition
<b>LT</b>	Low Temperature
<b>LTC</b>	Low-temperature combustion

Acronym	Definition
<b>LTGC</b>	Low Temperature Gasoline Combustion
<b>MBC</b>	Model based controls
<b>MCE</b>	Multi-cylinder engine
<b>MD</b>	Medium-duty
<b>MECA</b>	Manufacturers of Emission Controls Association
<b>Mg</b>	Magnesium
<b>MGOe</b>	Megagauss-oersteds
<b>MIT</b>	Massachusetts Institute of Technology
<b>mJ</b>	Milijoule
<b>mL</b>	milliliters
<b>MLCC</b>	Multilayer ceramic capacitor
<b>MMV</b>	Multi-material vehicle
<b>MMV</b>	Mapping, modeling and visualization
<b>Mn</b>	Manganese
<b>MOU</b>	Memorandum of Understanding
<b>MOVES</b>	Motor Vehicle Emissions Simulator
<b>MPa</b>	Megapascal
<b>MPG</b>	Miles per gallon
<b>MPGe</b>	Miles per gallon-electric
<b>MPGe</b>	Miles per gallon equivalent
<b>MPO</b>	Metropolitan Planning Organization
<b>ms</b>	Milliseconds
<b>MSU</b>	Michigan State University
<b>MTBE</b>	methyl tertiary butyl ether
<b>MTNW</b>	Measurement Technology Northwest
<b>MTU</b>	Michigan Technological University
<b>N<sub>2</sub></b>	Nitrogen
<b>N<sub>2</sub>O</b>	Nitrous Oxide
<b>NA</b>	Naturally aspirated
<b>Na</b>	Sodium
<b>NAFTC</b>	National Alternative Fuels Training Consortium
<b>NaOH</b>	Sodium hydroxide
<b>NASA</b>	National Aeronautics and Space Administration
<b>NASEO</b>	National Association of State Energy Officials
<b>NCA</b>	Battery cathode material (nickel cobalt aluminum oxide)
<b>NCM</b>	Nickel Cobalt Manganese
<b>Nd</b>	Neodymium
<b>Nd</b>	Neodymium
<b>NDE</b>	Non-destructive evaluation
<b>NDT</b>	Non-Destructive Testing
<b>NERSC</b>	National Energy Research Scientific Computing Center
<b>NF</b>	Nanofiber
<b>NFPA</b>	National Fire Protection Association



Acronym	Definition
<b>NG</b>	Natural gas
<b>NGV</b>	Natural gas vehicles
<b>NH<sub>3</sub></b>	Ammonia
<b>NHTSA</b>	National Highway Traffic Safety Administration
<b>Ni</b>	Nickel
<b>NiMH</b>	Nickel-metal hydride
<b>NIST</b>	National Institute of Standards and Technology
<b>NMC</b>	Nickel Manganese Cobalt oxide
<b>NMOG</b>	Non-methane organic gases
<b>NMP</b>	N-Methylpyrrolidone
<b>NMR</b>	Nuclear Magnetic Resonance
<b>NO</b>	Nitric Oxide
<b>NO<sub>2</sub></b>	Nitrogen Dioxide
<b>NO<sub>x</sub></b>	Oxides of Nitrogen
<b>NOx</b>	nitrogen oxides
<b>NP</b>	Nail penetration
<b>NPV</b>	Net present value
<b>NREL</b>	National Renewable Energy Laboratory
<b>NSC</b>	NO <sub>x</sub> Storage Catalyst
<b>NSF</b>	National Science Foundation
<b>NSR</b>	NO <sub>x</sub> Storage Reduction
<b>NTC</b>	Negative temperature coefficient
<b>NTRC</b>	National Transportation Research Center
<b>NVO</b>	Negative Valve Overlap
<b>NYSERDA</b>	New York State Energy Research and Development Authority
<b>O<sub>2</sub></b>	Oxygen
<b>OAS</b>	Open architecture standard
<b>OBD</b>	On-Board Diagnostics
<b>OBD</b>	On-board diagnostics
<b>OEM</b>	Original Equipment Manufacturer
<b>OH</b>	Hydroxide
<b>ORC</b>	Organic Rankine Cycle
<b>ORNL</b>	Oak Ridge National Laboratory
<b>OSC</b>	Oxygen storage capacity
<b>OSU</b>	Ohio State University
<b>P</b>	Phosphorous
<b>P3NGV</b>	Pennsylvania Partnership to Promote Natural Gas Vehicles
<b>PA</b>	Polyanhydride
<b>PACCAR</b>	Commercial Vehicle Manufacturer (Kenworth, Peterbilt, DAF)
<b>PAG</b>	polyalkylene glycol
<b>PAH</b>	Polycyclic aromatic hydrocarbon
<b>PAN</b>	Polyacrylonitrile
<b>PCA</b>	Principal component analysis

Acronym	Definition
<b>PCCI</b>	Premixed Charge Compression Ignition
<b>PCM</b>	Phase change material
<b>PDT</b>	Pulse discharge technique
<b>PERC</b>	Propane Education and Research Council
<b>PEV</b>	Plug-in electric vehicle
<b>PFI</b>	Port Fuel Injection
<b>PFS</b>	Partial fuel stratification
<b>PGM</b>	Platinum group metal
<b>PHEV</b>	Plug-in Hybrid Electric Vehicle
<b>PHS</b>	Press-hardened steel
<b>PI</b>	Principal Investigator
<b>PLZT</b>	Lead Zirconium Titanate
<b>PM</b>	Particulate matter
<b>PM</b>	Permanent magnet
<b>PMP</b>	Pontryagin Minimization Principle
<b>PN</b>	Particulate number
<b>PNA</b>	Passive NO <sub>x</sub> adsorber
<b>PNNL</b>	Pacific Northwest National Laboratory
<b>POD</b>	Proper orthogonal decomposition
<b>PP</b>	Polypropylene
<b>PPC</b>	Partially premixed combustion
<b>ppm</b>	Part per million
<b>PRC</b>	People's Republic of China
<b>Pt</b>	Platinum
<b>PTO</b>	Power take-off
<b>PVDF</b>	Polyvinylidene difluoride
<b>PWM</b>	Pulse width modulation
<b>PZT</b>	Lead Zirconate Titanate
<b>Q&amp;A</b>	Question and Answer
<b>QC</b>	Quality Control
<b>R&amp;D</b>	Research and development
<b>RANS</b>	Reynolds-Averaged Navier Stokes
<b>RCCI</b>	Reactivity controlled compression ignition
<b>RCM</b>	Rapid compression machines
<b>RE</b>	Rare Earth
<b>RF</b>	Radio frequency
<b>RFS</b>	Renewable Fuel Standard
<b>ROI</b>	Return on investment
<b>ROM</b>	Reduced-Order Models
<b>RON</b>	Research octane number
<b>RPM</b>	Rotations Per Minute
<b>RSP</b>	Renewable super premium
<b>Ru</b>	Ruthenium

Acronym	Definition
<b>S</b>	Sulfur
<b>SACI</b>	Spark assisted compression ignition
<b>SAE</b>	Society of Automotive Engineers
<b>Sb</b>	Antimony
<b>SCAQMD</b>	South Coast Air Quality Management District
<b>SCE</b>	Single cylinder engine
<b>SCR</b>	Selective Catalytic Reduction
<b>SCRF</b>	Selective catalytic reduction on filters
<b>SDAS</b>	Secondary dendrite arm spacing
<b>SDO</b>	Standards definition organizations
<b>SEI</b>	Solid Electrolyte Interface
<b>SEM</b>	Scanning electron microscope
<b>SEM</b>	Scanning Electron Microscope
<b>SFG</b>	Sum frequency generation
<b>SGIP</b>	Smart Grid Interoperability Panel
<b>Si</b>	Silicon
<b>SI</b>	Spark Ignition
<b>SiC</b>	Silicon Carbon
<b>SIDI</b>	Spark-ignition direct-injection
<b>SIMS</b>	Secondary-ion mass spectrometry
<b>SIP</b>	State Implementation Plan
<b>SMC</b>	Sheet Molding Compound
<b>Sn</b>	Tin
<b>SNL</b>	Sandia National Laboratories
<b>SOC</b>	State of Charge
<b>SPR</b>	Surface Plasmon Resonance
<b>STEM</b>	Scanning transmission electron microscopy
<b>SULEV</b>	Super Low-Emission Vehicle
<b>SUV</b>	Sport utility vehicle
<b>SWOT</b>	Strengths, Weaknesses, Opportunities, and Threats
<b>TARDEC</b>	U.S. Army Tank and Automotive Research, Development and Engineering Center
<b>TBE</b>	Turbo-back exhaust
<b>TCO</b>	Total cost of ownership
<b>TCR</b>	Thermochemical recuperation
<b>TDC</b>	Top dead center
<b>TE</b>	Thermoelectric
<b>TEDB</b>	Transportation Energy Data Book
<b>TEG</b>	Thermoelectric Generator
<b>TEM</b>	Transmission Electron Microscope
<b>Ti</b>	Titanium
<b>TIM</b>	Thermal interface materials
<b>TM</b>	Transition Metal
<b>TMA</b>	Tri Methyl Aluminum

Acronym	Definition
<b>TMS</b>	The Minerals, Metals, and Materials Society
<b>TPGME</b>	tri-propylene glycol methyl ether
<b>TRACC</b>	Transportation Research and Analysis Commuting Center
<b>TRD</b>	Transmission radiation detector
<b>TWB</b>	Tailor Welded Blanks
<b>TWC</b>	Three-Way Catalyst
<b>TXM</b>	Transmission x-ray microscope
<b>UAB</b>	University of Alabama at Birmingham
<b>UC</b>	University of California
<b>UConn</b>	University of Connecticut
<b>UDDS</b>	Urban Dynamometer Driving Schedule
<b>UHC</b>	Unburned hydrocarbons
<b>UHP</b>	Ultra high purity
<b>UM</b>	University of Michigan
<b>UMTRI</b>	University of Michigan Transportation Research Institute
<b>US DRIVE</b>	U.S. Driving Research and Innovation for Vehicle Efficiency and Energy sustainability
<b>USABC</b>	US Advanced Battery Consortium
<b>USCAR</b>	U.S. Council for Automotive Research
<b>UTS</b>	Ultimate tensile strength
<b>UW</b>	University of Wisconsin
<b>UWM</b>	University of Wisconsin-Milwaukee
<b>V</b>	Volt
<b>V2G</b>	Vehicle-to-Grid
<b>V2I</b>	Vehicle-to-Infrastructure
<b>V2V</b>	Vehicle-to-Vehicle
<b>VC</b>	Vinylene Carbonate
<b>VCR</b>	Variable compression ratio
<b>VCT</b>	Variable camshaft timing
<b>VI</b>	Viscosity index
<b>VIUS</b>	Vehicle Inventory and Use Survey
<b>VMT</b>	Vehicle miles traveled
<b>VSS</b>	Vehicle & System Simulation
<b>VSST</b>	Vehicle systems safety technology
<b>VTMR</b>	Vehicle Technologies Market Report
<b>VTMS</b>	Vehicle thermal management system
<b>VTO</b>	Vehicle Technologies Office
<b>VUV</b>	Vacuum ultraviolet
<b>VVA</b>	Variable Valve Actuation
<b>WBG</b>	Wide Bandgap
<b>WHR</b>	Waste Heat Recovery
<b>WOT</b>	Wide-open throttle
<b>WPT</b>	Wireless Power Transfer
<b>WSU</b>	Washington State University

Acronym	Definition
<b>XAFS</b>	X-ray absorption fine structure
<b>XANES</b>	X-ray Absorption Near Edge Spectroscopy
<b>XAS</b>	X-ray Absorption Spectroscopy
<b>XPS</b>	X-ray photoelectron spectroscopy
<b>XRD</b>	X-ray Diffraction (Crystallography)
<b>XRF</b>	X-ray Fluorescence
<b>ZDDP</b>	zinc dialkyl-dithio-phosphate
<b>Zn</b>	Zinc
<b>Zr</b>	Zirconium
<b>ZT</b>	Thermoelectric Figure of Merit

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