International Regulatory Developments

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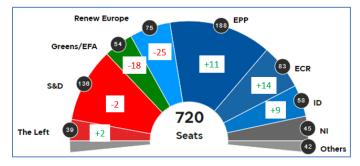




EUROPE

European Election Results

From 6-9 June 2024, elections were held in the European Union Member States to elect Members of the European Parliament for the period 2024-2029. Provisional results show a distribution of seats in the new Parliament as below. This is based on available provisional or final national results, according to the Political Group structure of the outgoing Parliament.



Updated EU election results can be found at results.elections.europa.eu/en/european-results/2024-2029.

Decisions of European Council on 2024-2029 Institutional Cycle

On 27 June 2024, the European Council met in Brussels. Amongst other issues, Member States discussed key appointments and the strategic agenda for the 2024-2029 institutional cycle.

The European Council elected António Costa as President of the European Council for the period from 1 December 2024 until 31 May 2027. It requested the Secretary-General of the Council to assist the elected President of the European Council in the transition period. Mr Costa was Prime Minister of Portugal from 2015 to 2023.

The Council also adopted the decision proposing Ursula von der Leyen to the European Parliament as candidate for President of the European Commission.

It further stated that it considers Kaja Kallas to be the appropriate candidate for High Representative of the Union for Foreign Affairs and Security Policy, subject to the agreement of the President-elect of the Commission. Ms Kallas is currently Prime Minister of Estonia.

The European Council adopted the Strategic Agenda for the Union for 2024-2029. This includes plans for a 'free and democratic' Europe, a 'strong and secure' Europe and a 'prosperous and competitive' Europe.

Full details of the European Council's decisions are at <u>consilium.europa.eu/media/qa3lblga/euco-conclusions-27062024-en.pdf</u>.

Priorities for Hungarian Presidency of Council of the European Union

On 18 June 2024, Hungary published its priorities for its Presidency of the Council of the European Union for the second half of 2024. During this time, it says it will act as an honest broker in faithful cooperation with Member States to achieve peace, security and prosperity in Europe in a challenging period.

The priorities include a new European Competitiveness Deal, the reinforcement of European defence policy, a consistent and merit-based enlargement policy, stemming illegal migration, shaping the future of cohesion policy, a farmeroriented agricultural policy and addressing demographic challenges.

In the section of the document covering environmental and climate policy, it talks about a healthy and pollutant-free environment, with the emphasis clearly on water pollution and no mention of air quality.

Regarding climate, the Hungarian Presidency says it attaches great importance to the fight against climate change. It acknowledges that we are already facing the adverse effects of climate change, including extreme weather events such as floods, droughts and storms, which require urgent global action. Its aim is to contribute to maintaining the European Union's leading role in global climate policy by implementing the EU's nationally defined contribution and strengthening the level of global ambition.

The priority of the Hungarian Presidency is to contribute to the process of defining an ambitious, yet achievable, intermediate 2040 climate goal that guarantees that no citizen or Member State is left behind while ensuring the competitiveness and the security of energy supply of the EU throughout the green and just transition. Hungary says it continues to support action in the mitigation of emissions, adaptation, and climate financing on the path towards climate while emphasising the importance neutrality of strengthening resilience. At the same time, the Hungarian Presidency aims to closely monitor the implementation of the 2030 'Fit for 55' package as the cornerstone of achieving climate neutrality by 2050. In this context, the Hungarian Presidency strives to discuss the challenges and share good practices of the various Member States.

The Hungarian Presidency priorities can be found at <u>hungarianpresidency.consilium.europa.eu/en/programme/priorities</u>.

Publication of Regulation on HDV CO₂ Emission Standards

On 6 June 2024, Regulation 2024/1610 was published in the Official Journal of the European Union. This strengthens the CO_2 emission performance standards for new heavy-duty vehicles and integrating reporting obligations, amending Regulation 2018/858 and repealing Regulation 2018/956.



The Regulation expands the application of emission reduction targets to smaller trucks, urban buses, coaches and trailers.

As regards targets (see AECC Newsletter of May 2024), the Regulation establishes the following emission reduction targets: 45% from 2030; 65% from 2035; and 90% from 2040. In parallel, urban buses are subject to a 100% zero-emission target by 2035.

The Regulation will enter into force on 26 June and apply from 1 July 2024.

The Regulation is in the Official Journal at <u>eur-lex.europa.eu/legal-content/EN/TXT/?uri=OJ:L_202401610</u>.

Publication of Regulation on Emissions According to Fuel Requirements

On 27 June 2024, Regulation 2024/1312 was published in the Official Journal of the European Union. The basis for the Regulation is UN Regulation No 83, concerning uniform provisions concerning the approval of vehicles with regard to the emission of pollutants according to engine fuel requirements.

The Regulation establishes technical requirements for the type approval of motor vehicles with regard to idling emissions (Type 2 test), crankcase emissions (Type 3 test) and exhaust emissions at low ambient temperature (Type 6 test) for emissions of gaseous compounds. In addition, this Regulation lays down rules for in-service conformity.

The Regulation can be found at <u>eur-lex.europa.eu/legal-content/EN/TXT/?uri=OJ:L_202401312</u>.

Commission Investigation into BEV Value Chain in China

On 12 June 2024, the European Commission published its provisional conclusions on an investigation into battery electric vehicle (BEV) value chains in China. It has provisionally concluded that the BEV value chain in China benefits from unfair subsidisation, which it claims is causing a threat of economic injury to EU BEV producers. The investigation also examined the likely consequences and impact of measures on importers, users and consumers of BEVs in the EU.

Consequently, the Commission has reached out to Chinese authorities to discuss these findings and explore possible ways to resolve the issues identified in a WTO-compatible manner.

In this context, the Commission has pre-disclosed the level of provisional countervailing duties it would impose on imports of battery BEVs from China. Should discussions with Chinese authorities not lead to an effective solution, it says these provisional countervailing duties would be introduced from 4 July by a guarantee (in the form to be decided by customs in each Member State). They would be collected only if and when definitive duties are imposed.

The individual duties the Commission would apply to the three sampled Chinese producers would be 17.4% in the case of BYD, 20% for Geely and 38.1% on SAIC.

Other BEV producers in China, which cooperated in the investigation but have not been sampled, would be subject to a 21% weighted average duty.

All other BEV producers in China which did not cooperate in the investigation would be subject to a residual duty of 38.1%.

Further information is available to read at <u>ec.europa.eu/commission/presscorner/detail/en/ip_24_3231</u>.

EEA Report on CO₂ Emissions from New Cars and Vans

On 10 June 2024, the European Environment Agency (EEA) published provisional data showing that average CO_2 emissions from all new cars registered in Europe in 2023 continued to decrease and were 1.4% lower than in 2022. Average CO_2 emissions from new vans also continued to fall and were 1.6% lower than in 2022.

These provisional data show that, in 2023, 10.7 million new cars were registered in Europe, which translates to an increase of 13.2% compared to 2022. Almost a quarter of these new car registrations were electric – either fully or plug-in hybrid. Among the reporting countries, the fleet share of electric cars was highest In Norway, Sweden and Iceland, reaching 90.5%, 60.7% and 60.4%, respectively.

In 2023, 1.2 million new vans were registered in Europe, which is 20.2% above the 2022 levels. The share of electric vans reached 8% in 2023. More than half of the fully electric vans were registered in three countries: France, Germany and Sweden.

The EEA collects and makes available information new vehicles registered in Europe in accordance with Regulation (EU) 2019/631. These data are based on the Worldwide Harmonized Light Vehicle Test Procedure (WLTP) and include new vehicle registrations in EU Member States, Iceland, and Norway.

The data released are based on data provided by countries and remain provisional until vehicle manufacturers have reviewed them later this year in order to correct factual errors. The EEA will subsequently publish the final datasets and the European Commission will confirm whether individual manufacturers or pools have met their annual specific CO_2 emission target.

The provisional data can be found at

eea.europa.eu/en/newsroom/news/new-data-co2-emissions-of-new-cars-and-vans.

EEA Report on Europe's Air Quality Status

On 6 June 2024, the European Environment Agency (EEA) published its 2024 report on Europe's air quality. The briefing presents the status of regulated pollutants in ambient air in

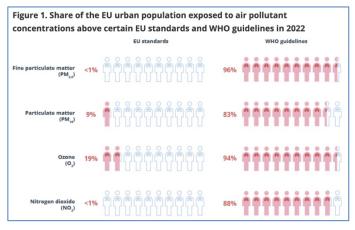


2022 and 2023 in relation to current EU air quality standards and World Health Organization (WHO) guideline levels.

It assesses concentrations of air pollutants in ambient air across Europe, comparing them against current EU standards and the 2021 WHO global air quality guidelines. The EU standards were set out in the 2004 and 2008 ambient air quality directives.

The briefing says that under the European Green Deal (EGD)'s zero pollution action plan, the European Commission set the interim 2030 goal of reducing the number of premature deaths caused by fine particulate matter (PM2.5, a key air pollutant) by at least 55% compared with 2005 levels. The ultimate objective is for air pollution to have no significant impact on health by 2050. To this end, the Commission published a proposal to review the ambient air quality directives in 2022. Among other things, it aimed to align the air quality standards more closely with WHO recommendations.

In 2022, despite ongoing reductions in emissions, most of the EU's urban population continued to be exposed to levels of key air pollutants that are damaging to health. In particular, almost all of the urban population was exposed to concentrations of PM2.5 above the 2021 WHO annual guideline level of $5\mu g/m^3$ and to concentrations of ozone (O₃) above the short-term guideline level of $100\mu g/m^3$.

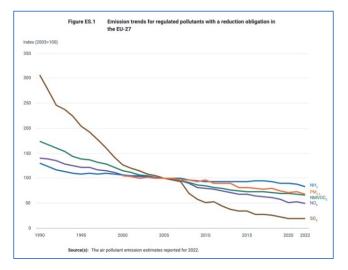


The EEA briefing can be read in full at <u>eea.europa.eu/publications/europes-air-quality-status-2024</u>.

Publication of EU Emission Inventory Report

On 25 June 2024, the European Environment Agency (EEA) published its annual European Union emission inventory report 1990-2022, under the Convention on Long-range Transboundary Air Pollution (UNECE Air Convention), which shows a continued downward trend in emissions for most main air pollutants from 2005 despite economic growth over the same period.

This shows that key air pollutant emissions targeted for reductions and monitored under EU legislation continued to decline across most EU Member States. However, reducing ammonia emissions remains a problem.



Notably, among the regulated pollutants with an emission reduction commitment, sulphur dioxide (SO₂) emissions were reduced the most across the EU. In 2022, emissions were 81% lower than in 2005. Pollutants addressed in the report are the five main air pollutants (NOx, NMVOCs, SO₂, NH₃ and PM2.5) but also others such as heavy metals, black carbon and persistent organic pollutants.

The report can be downloaded from <u>eea.europa.eu/en/newsroom/news/key-air-pollutant-emissions-decline-</u> across-the-eu.

Launch of Innovation Centre for Industrial Transformation & Emissions

On 21 June 2024, the European Innovation Centre for Industrial Transformation and Emissions (INCITE) was launched in Seville, Spain and online. INCITE promotes the uptake of innovative technologies to achieve decarbonisation, depollution, increased resource efficiency and circular economy in large industrial plants.

Topics covered during the launch event were transformation, innovation and resources, with panels assembled to discuss each in turn.

A session on governance and legislative aspects followed, with contributions from the European Commission's DG-ENV, Germany's Environment Ministry, the Article 13 Forum and the European Environmental Bureau. Mr Benoit Zerger from the DG-ENV Industrial Emissions and Safety Unit said that INCITE was set up to provide knowledge on emissions and carbon neutrality. He added that Best Available Technologies (BAT) conclusions take a long time to develop but INCITE will work on a continuous basis showing information on new techniques. INCITE is to be tested in the coming months to see if it will work through workshops or consultations. It is clear that new networks will have to be built.

The programme of the event is available at innovation-centre-for-industrial-transformation.ec.europa.eu/incite-launch-event and the INCITE website can be found at innovation-centre-for-industrial-transformation.ec.europa.eu.



Berlin Declaration on E-Fuels in Mobility

On 4 June 2024, Germany, Japan and Lithuania signed the 'Berlin Declaration on eFuels in Mobility', emphasising that they share the conviction that a variety of different modern drivetrain technologies and fuel types will be needed to reach the climate change mitigation targets for the transport sector. They state that they are united in their aim of decarbonising all transport sectors.

The statement goes on to say that the countries wish to deploy the different technologies – be it electric mobility with battery, hydrogen and fuel cell technology, advanced biofuels or renewable power-based fuels, that is e-fuels – in a technology-neutral manner, while ensuring the most efficient utilization of the existing and limited renewable energy generation potential within and outside of their countries.

The ministers say that they are committed to the goal of achieving net-zero emissions in the road sector by 2050, and underline that a transition over the coming decade to infrastructure and a vehicle fleet that supports zero emissions transport (e.g. zero emission vehicles (ZEV) and associated infrastructure, and sustainable carbon-neutral fuels) is critical.

They also highlight the various actions that each is taking to decarbonise their vehicle fleet, including such domestic policies that are designed to achieve 100% or the overwhelming penetration of sales of light duty vehicles (LDVs) as ZEV by 2035 and beyond; to achieve 100% electrified vehicles in new passenger car sales by 2035; to promote associated infrastructure and sustainable carbonneutral fuels including sustainable bio- and synthetic fuels.

The signatories state that they are of the opinion that, in addition to advanced biofuels, e-fuels, due to its ease in storage and transport, will serve as a crucial solution towards net-zero greenhouse gas (GHG) emissions, especially in sectors and regions where high energy density and resilient supply chains are essential. This is likely to apply to some use cases of medium and heavy-duty commercial vehicles and, in particular, to aviation and maritime transport, as well as in areas with low grid connection.

The three countries commit to liaise amicably and invite other ministers to join the Declaration.

The Declaration is available to read in full at <u>bmdv.bund.de/SharedDocs/EN/Documents/K/berliner-erklaerung-en.pdf?__blob=publicationFile</u>.

NORTH AMERICA

Final US CAFE Rule for MY 2027-2031

On 7 June 2024, the US Department of Transportation's National Highway Traffic Safety Administration issued new vehicle fuel economy standards for model years 2027-2031.

In this final rule, fuel economy will increase 2% per year for model years 2027-2031 for passenger cars, while light trucks

will increase 2% per year for model years 2029-2031. These increases will bring the average light-duty vehicle fuel economy up to approximately 50.4 miles per gallon by model year 2031.

Heavy-duty pickup truck and van fuel efficiency will increase 10% per year for model years 2030-2032 and 8% per year for model years 2033-2035. This will result in a fleetwide average of approximately 35 miles per gallon by model year 2035.

NHTSA's new fuel economy standards complement the Environmental Protection Agency's emissions standards for similar vehicle fleets. NHTSA worked closely with the EPA to optimise the effectiveness of its standards while minimising compliance costs, consistent with applicable statutory factors.

The final rule sets increased standards that NHTSA says are consistent with Congress' direction to conserve fuel and promote American energy independence and American automotive manufacturing, while providing flexibility to industry on how to achieve those targets. Though NHTSA does not consider electric and other alternative fuels when setting standards, manufacturers may use all available technologies – including advanced internal combustion engines, hybrid technologies and electric vehicles – for compliance.

The NHTSA announcement is at https://www.nhtsa.gov/press-releases/new-fuel-economy-standards-model-years-2027-2031.

ASIA-PACIFIC

Brazilian Senate Approval of Green Mobility and Innovation Programme

On 5 June 2024, Brazil's Senate approved the basic text of the Green Mobility and Innovation programme (Mover), which encourages investments in new technologies and increases the decarbonisation requirements of the Brazilian automotive fleet.

Mover provides financial credits for companies to invest in decarbonisation. The incentives will be R\$3.5 (€0.57) billion in 2024, R\$3.8 (€0.62) billion in 2025, R\$3.9 (€0.64) billion in 2026, R\$4 (€0.65) billion in 2027 and R\$4.1 (€0.67) billion in 2028 – totalling R\$19.3 (€3.16) billion.

The programme will promote the expansion of investments in energy efficiency, include minimum recycling limits in the manufacture of vehicles and charge less tax to those who pollute least.

In some aspects, Mover continues Rota 2030, created in 2018, and its predecessor, Inovar Auto, from 2012. All of them aim to reduce carbon emissions by 50% by 2030.

The new programme increases mandatory sustainability requirements for new vehicles sold in the country. Among the new features is the measurement of carbon emissions



"from well to wheel", that is, considering the entire cycle of the energy source used.

Subsequently, Mover envisages an even broader measurement, known as "from cradle to grave" and covering the carbon footprint of all components and all stages of production, use and disposal of the vehicle.

The scope of Mover covers trucks and buses as well as passenger vehicles.

Information on the programme (in Portuguese) is at gov.br/mdic/pt-br/assuntos/noticias/2024/junho/senado-aprova-porunanimidade-texto-base-do-mover.

India Proposal to tighten CAFE III and IV New Passenger Car Standards

On 7 June 2024, the Indian Bureau of Energy Efficiency (BEE) published an Office Memorandum inviting comments on the proposal of future fuel efficiency norms.

The CAFE norms represent Corporate Average Fuel Consumption (in litres/100 km) of all cars sold by a manufacturer in a fiscal year and not of an individual model. According to the norms, the average weight of all the car models manufactured was considered to be 1037 kgs in the first phase, and the Average Fuel Consumption was prescribed as below 5.49 litres/100 km. The CAFE-II norms prescribed an average weight as 1082 kgs since April 2022. The fuel consumption is measured under the standard test conditions at the nationally accredited labs using the MIDC cycle.

BEE has initiated the process of developing future CAFE norms for CAFE-III (2027-2032) and CAFE-IV (2032-2037). Stakeholders are able to comments within 30 days of the proposal.

It is proposed to switch from the MIDC cycle to WLTP from 31 March 2027 for the purpose of type approval. Accordingly, CAFE-III and IV targets are proposed on the WLTP cycle. The proposed CAFE-III and CAFE-IV norms at WLTP shall be 91.7g CO₂/km and 70g CO₂/km respectively. The proposed weighted average of unladen mass is 1 170kg.

The proposals can be downloaded from beeindia.gov.in/en/om-on-inviting-comments-on-the-proposal-of-future-fuel-efficiency-norms-ie-cafe-iii-cafe-iv-norms.

UNITED NATIONS

Science-Policy Panel on Chemicals, Waste and Pollution Prevention

On 22 June 2024, governments gathered in Geneva to advance the process to establish a science-policy panel on chemicals, waste and pollution prevention, agreeing to continue negotiations to further develop the proposal for this body, akin to the IPCC on climate change and the IPBES on biodiversity.

Negotiations were held during the third session of an ad hoc open-ended working group (OEWG) that was mandated by the UN Environment Assembly in 2022 (UNEA-5). Discussions will continue at a date to be defined, preceding the intergovernmental meeting expected to establish the panel.

The new panel will support governments and other stakeholders by providing science-based advice to review problems and issues of concern and co-create solutions with governments and other stakeholders for the sound managements of chemicals and waste to prevent pollution.

The final proposal by the OEWG will be considered by the intergovernmental meeting for the establishment of the science-policy panel to be convened by the Executive Director of UNEP in 2025.

The UNEP press release is at <u>unep.org/news-and-stories/press-release/negotiations-advance-towards-global-intergovernmental-science-policy</u>.

GENERAL

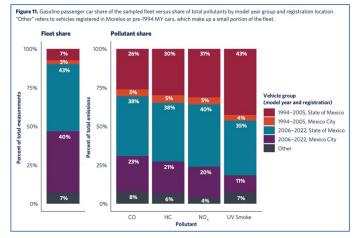
TRUE Assessment of Real-World Car and Taxi Emissions in Mexico City

On 13 June 2024, The Real Urban Emissions Initiative (TRUE) published an assessment of real-world passenger vehicle and taxi emissions in Mexico City.

The report says light-duty vehicles (LDVs), such as passenger vehicles and taxis, are a key source of transport emissions in Mexico City. The policies governing LDV emissions in Mexico continue to lag behind those of other countries, however. The country's LDV emission standard was last updated in 2005; while an update is currently being drafted, it is not expected to be rolled out until 2025. A local periodic inspection programme — the Mandatory Vehicle Verification Programme (PVVO) — tests exhaust emissions of cars in Mexico City and restricts the highest-emitting vehicles from driving on select days. The Mexico City government also has announced plans to implement additional policies to reduce 30% of criteria pollutants from transportation by 2024.

This analysis, conducted under the TRUE Initiative, provides insights on real-world vehicle emissions in Mexico City to inform the implementation and oversight of policies to reduce air pollution. It analyses real-world vehicle emissions data collected from passenger vehicles (PVs), taxis, and light-duty trucks in Mexico City and the surrounding region, 98.6% of which were fuelled by gasoline. Testing ran from February to April 2022 and measured tailpipe carbon monoxide (CO), hydrocarbons (HC), nitrogen oxides (NOx), and ultraviolet (UV) smoke, a proxy for particulate matter. In a first for the TRUE Initiative, this study also considers evaporative emissions — HC emissions from sources other than the tailpipe — to offer a comprehensive view of vehicle emissions in Mexico City. There are several key findings of the analysis.





Firstly, limiting the operation of the small percentage of highemitting, older passenger vehicles that have an outsized emissions impact can result in large emission reductions. 50% of gasoline passenger vehicle CO, HC, NOx, and UV smoke emissions were from vehicles 14–17 years old and older, which account for under 20% of the sampled fleet. Adopting a low emission zone in Mexico City's downtown area by 2024 would help greatly reduce emissions from older vehicles and improve air quality.

TRUE says prioritising incentives to phase out the highest emitting taxis would help to improve the average real-world emissions performance of taxis. Despite being comparatively newer than PVs, average taxi emissions were approximately 2.2–3.1 times higher than PVs across all pollutants.

The report adds that PVVO administration should be assessed across states to fully harmonise inspection and maintenance programmes, which could help close the gap in real-world emissions between registration locations.

Finally, Local regulations, incentives, and awareness campaigns could accelerate the transition to lower emitting and zero-emission new vehicles. With Mexico's national emission standards lagging those of many major markets, currently equivalent to U.S. Tier 1 and Euro 3 standards, the report says it is important for local governments to consider implementing more stringent regulations.

The report is available to read at theicct.org/wp-content/uploads/2024/06/ID-79-%E2%80%93-Mexico-City-RS_final.pdf.

RESEARCH SUMMARY

Effects of Emissions and Pollution

Air Quality Perceptions, Awareness, and Associated Behaviors among U.S. Adults with and without Heart Disease, Tia MPhil, *AJPM Focus* (in press), doi: 10.1016/j.focus.2024.100249.

Environmental pollutants particulate matter (PM_{2.5}, PM₁₀), Carbon Monoxide (CO), Nitrogen dioxide (NO2), Sulfur dioxide (SO₂), and Ozone (O₃) impact on lung functions, Ayoub Meo, et al.; *Journal of King Saud University – Science* (August 2024), Vol. 36, Issue 7, 103280, doi: 10.1016/j.jksus.2024.103280.

Controlled human exposures to diesel exhaust or particle-depleted diesel exhaust with allergen modulates transcriptomic responses in the lung, Shijia Li, et al.; *Science of The Total Environment* (in press), <u>doi:</u> 10.1016/j.scitotenv.2024.173688.

Joint associations of air pollutants during pregnancy, infancy, and childhood with childhood persistent asthma: Nationwide database study in Japan, Akihiro Shiroshita, et al.; *Ecotoxicology and Environmental Safety* (August 2024), Vol. 281, 116626, <u>doi:</u> 10.1016/j.ecoenv.2024.116626.

Air Quality, Sources and Exposure

Significantly underestimated traffic-related ammonia emissions in Chinese megacities: Evidence from satellite observations during COVID-19 lockdowns, Peilin Chen, et al.; *Chemosphere* (August 2024), Vol. 361, 142497, doi: 10.1016/j.chemosphere.2024.142497.

The Volkswagen emissions scandal: Exploring the role of environmental concern and social norms, M. Marino, et al.; *Journal of Environmental Economics and Management* (June 2024), 103019, <u>doi:</u> 10.1016/j.jeem.2024.103019.

Decomposing PM_{2.5} concentrations in urban environments into meaningful factors 2. Extracting the contribution of traffic-related exhaust emissions, Idit Belachsen and David Broday; *Science of The Total Environment* (in press), <u>doi: 10.1016/j.scitotenv.2024.173715</u>.

Air quality assessment during the low emission zone implementation in Madrid (Spain), Álvaro Gómez-Losada and José Pires, et al.; *Urban Climate* (May 2024), Vol. 55, 101995, <u>doi: 10.1016/j.uclim.2024.101995</u>.

Effect of local measures on the update of the circulating vehicle fleet and the reduction of associated emissions: 10 years of experience in the city of Madrid, Javier Rodríguez and Héctor Díez; *Cities* (September 2024), Vol. 152, 105214, <u>doi: 10.1016/j.cities.2024.105214</u>.

Road congestion and air pollution - Analysis of spatial and temporal congestion effects, Shuhua Xu, et al.; *Science of The Total Environment* (October 2024), Vol. 945, 173896, <u>doi: 10.1016/j.scitotenv.2024.173896</u>.

Emissions Measurements and Modelling

Emissions from heavy-duty diesel, natural gas, and diesel-hybrid electric vehicles – Part 1. NOx, N₂O and NH₃ emissions, Hanwei Zhu, et al.; *Fuel* (September 2024), Vol. 371, 132175, <u>doi: 10.1016/j.fuel.2024.132175</u>.

Impact of diesel/renewable fuels blend on gaseous and particle emissions of a light-duty vehicle under Real Driving Emissions, Luis Tipanluisa, et al.; *Renewable Energy* (in press), <u>doi:</u> 10.1016/j.renene.2024.120819.

Investigating the potential of a higher reactivity fuel to achieve faster heat-up of aftertreatment systems, Srinath Subramanian and David Rothamer; *Fuel* (October 2024), Vol. 373, 132139, <u>doi:</u> 10.1016/j.fuel.2024.132139.

Butanol and selective catalytic reduction of gaseous emissions in a heavy-duty diesel engine, Luis Tipanluisa, et al.; *Fuel* (October 2024), Vol. 373, 132236, <u>doi: 10.1016/j.fuel.2024.132236</u>.

Characterizing ammonia emission from light-duty gasoline vehicles under the influence of multiple factors and its correlation with conventional pollutants, Han Jiang, et al.; *Science of The Total Environment* (October 2024), Vol. 945, 173967, <u>doi:</u> 10.1016/j.scitotenv.2024.173967.



Emissions Control, Catalysis, Filtration

Effect of Pd chemical states on three-way catalytic reaction and C_3H_8 total combustion reaction in Pd/CeO₂-ZrO₂-Al₂O₃ catalysts, Wei Wang, *Fuel* (September 2024), Vol. 372, 132052, <u>doi:</u> 10.1016/j.fuel.2024.132052.

Transport, Climate Change and Emissions

A review of the trends, evolution, and future research prospects of hydrogen fuel cells - A focus on vehicles, Ephraim Agyekum, et al.;

FORTHCOMING CONFERENCES

International Congress on Catalysis 14-19 July 2024, Lyon, France https://www.icc-lyon2024.fr

Future of Emission Control 21-23 July 2024, Karlsruhe, Germany trackact.kit.edu/FuturEmission.php

Thermo- and Fluid Dynamics Processes for Clean Propulsion Powerplants 10-13 September 2024, Valencia, Spain cmt.upv.es/#/thiesel2024

Rostock Large Engine Symposium 12-13 September 2024 rgmt.de

Emissions Analytics Non-Road Powertrains and Fuels 18-19 September 2024, Munich, Germany conferences.emissionsanalytics.com/nonroad-eu

SAE Conference on Sustainable Mobility 18-20 September 2024, Catania, Italy universitacusano.com/csm2024

Aachen Colloquium Sustainable Mobility 7-9 October 2024, Aachen, Germany aachener-kolloquium.de/en

Future of Biofuels 23-24 October 2024, Copenhagen, Denmark fortesmedia.com/future-of-biofuels-2024,4,en,2,1,104.html

FISITA World Mobility Summit 13-14 November 2024, Warren, USA events.fisita.com/event/Summit2024

SAE WCX World Congress 8-10 April 2025, Detroit, USA wcx.sae.org

POLIS Conference 2024 27-28 November 2024, Karlsruhe, Germany polisnetwork.eu/2024-annual-polis-conference

Heavy-Duty Sustainable Transport Symposium 7-8 May 2025, Gothenburg, Sweden sae.org/attend/heavy-duty-sustainable-transport-symposium International Journal of Hydrogen Energy (June 2024), Vol. 72, pp. 918-939, doi: 10.1016/j.ijhydene.2024.05.480.

Leveraging automotive fuel cells can supply zero-emission peak power in the near-term, Emilia Chojkiewicz and Amol Phadke; *iScience* (in press), <u>doi: 10.1016/j.isci.2024.110246</u>.

Mechanism of PGMs capture from spent automobile catalyst by copper from waste printed circuit boards with simultaneous pollutants transformation, Shuyu Chen, et al.; *Waste Management* (September 2024), Vol. 186, pp. 130-140, <u>doi: 10.1016/j.wasman.2024.06.001</u>.