



INDUSTRIJA NAFTI, d.d.
Rafinerije i marketing/Refining &
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Razvoj/Development
Istraživanje i razvoj/Research &
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Centralni ispitni laboratorij/Central
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POPIS AKREDITIRANIH METODA ISPITIVANJA

LIST OF ACCREDITED TESTING METHODS

Br./No	Metoda ispitivanja/Testing method	Godina izdanja/Year of publication
1.	HRN EN 14275 Goriva za motorna vozila – Ocjena kvalitete benzina i dizelskoga goriva – Uzorkovanje iz pumpi na benzinskim postajama i komercijalnih istakača goriva <i>Automotive fuels – Assessment of petrol and diesel fuel quality – Sampling from retail site pumps and commercial site fuel dispensers</i>	2013.
2.	HRN EN 13016-1 Tekući naftni proizvodi – Tlak para – 1. dio: Određivanje tlaka para ugljikovodika zasićenih zrakom (ASVP) i izračunavanje tlaka para ugljikovodika u suhom zraku (DVPE) <i>Liquid petroleum products – Vapour pressure – Part 1: Determination of air saturated vapour pressure (ASVP) and calculated dry vapour pressure equivalent (DVPE)</i>	2018.
3.	HRN EN ISO 12185 Nafta i naftni proizvodi – Određivanje gustoće – Metoda s oscilirajućom U-cijevi <i>Crude petroleum and petroleum products – Determination of density – Oscillating U-tube method</i>	1999.
4.	ASTM D4052 Standard Test Method for Density, Relative Density, and API Gravity of Liquids by Digital Density	2022.
5.	HRN EN ISO 3405 Naftni proizvodi – Određivanje značajki destilacije pri atmosferskom tlaku <i>Petroleum and related products from natural or synthetic sources – Determination of distillation characteristics at atmospheric pressure</i>	2019.
6.	ASTM D86 Standard Test Method for Distillation of Petroleum Products and Liquid Fuels at Atmospheric Pressure	2023.
7.	HRN EN ISO 2719 Određivanje točke paljenja – Metoda u zatvorenoj posudi po Pensky-Martensu (Postupak A i C) <i>Determination of flash point – Pensky-Martens closed cup method – (Procedure A and C)</i>	2016/A1:2021.
8.	ASTM D7042 Standard Test Method for Dynamic Viscosity and Density of Liquids by Stabinger Viscometer (and the Calculation of Kinematic Viscosity)	2021a.
9.	HRN EN 116 Dizelsko gorivo i loživo ulje ekstra lako – Određivanje točke filtrabilnosti – Metoda postupnog hlađenja <i>Diesel and domestic heating fuels – Determination of cold filter plugging point – Stepwise cooling bath method</i>	2015.
10.	HRN EN ISO 4264 Naftni proizvodi – Izračunavanje cetanskog indeksa za srednje destilatna goriva pomoću jednadžbe s četiri veličine <i>Petroleum products – Calculation of cetane index of middle-distillate fuels by the four variable equation</i>	2018.

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11.	HRN EN 228 Goriva za motorna vozila -- Bezolovni motorni benzin -- Zahtjevi i metode ispitivanja <i>Automotive fuels -- Unleaded petrol -- Requirements and test methods -- National Annex</i>	2017/NA:2020/ Ispr.1:2020
12.	HRN EN 13723 Naftni proizvodi -- Određivanje male količine olova u motornim benzinima - - Valno disperzivna rendgenska fluorescentna spektrometrija (XRF) <i>Petroleum products -- Determination of low lead contents in gasolines -- Wavelength-dispersive X-ray fluorescence spectrometry (XRF)</i>	2003.
13.	HRN EN 15553 Naftni proizvodi i srodni materijali -- Određivanje vrste ugljikovodika -- Adsorpcijska metoda s fluorescentnim indikatorom <i>Petroleum products and related materials -- Determination of hydrocarbon types -- Fluorescent indicator adsorption method</i>	2021.
14.	HRN EN 238/A1 Tekući naftni proizvodi -- Benzin -- Određivanje količine benzena pomoću infracrvene spektrometrije <i>Liquid petroleum products -- Petrol -- Determination of the benzene content by infrared spectrometry</i>	1997/A1:2005
15.	HRN EN 13132 Tekući naftni proizvodi -- Bezolovni benzin -- Određivanje organskih kisikovih spojeva i ukupnog sadržaja organski vezanog kisika plinskom kromatografijom s preusmjeravanjem toka <i>Liquid petroleum products -- Unleaded petrol -- Determination of organic oxygenate compounds and total organically bound oxygen content by gas chromatography using column switching</i>	2002.
16.	Vlastita metoda In-house method 50340079-578-21 Modificirana HRN EN 13132 Tekući naftni proizvodi -- Bezolovni benzin -- Određivanje organskih kisikovih spojeva (eteri s 5 ili više C-atoma, drugi oksigenati) plinskom kromatografijom s preusmjeravanjem toka Modified HRN EN 13132 <i>Liquid petroleum products -- Unleaded petrol -- Determination of organic oxygenate compounds ((ethers with 5 or more carbon atoms, other oxygenates) by gas chromatography with flow diversion</i>	2021.
17.	ASTM D5291 Standard Test Methods for Instrumental Determination of Carbon, Hydrogen, and Nitrogen in Petroleum Products and Lubricants	2021.



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18.	Vlastita metoda <i>In-house method</i> 50340079-298-20 Modificirana ASTM D5291 postupak A Određivanje ugljika, vodika i dušika Modified ASTM D5291 procedure A Determination of carbon, hydrogen and nitrogen	2020.
19.	ASTM D2622 - Standard Test Method For Sulfur In Petroleum Products By Wavelength Dispersive X-Ray Fluorescence Spectrometry	2021.
20.	HRN EN 12916 Naftni proizvodi – Određivanje tipova aromatskih ugljikovodika u srednjim destilatima – Metoda tekućinske kromatografije visokog učinka s detektorom indeksa loma (Postupak A) Petroleum products -- Determination of aromatic hydrocarbon types in middle distillates -- High performance liquid chromatography method with refractive index detection (Procedure A)	2022.
21.	HRN EN ISO 20846 Naftni proizvodi -- Određivanje količine sumpora u gorivima za motorna vozila -- Metoda ultraljubičaste fluorescencije Petroleum products -- Determination of sulfur content of automotive fuels -- Ultraviolet fluorescence method	2019.
22.	HRN EN 14078 Tekući naftni proizvodi – Određivanje količine metilnih estera masnih kiselina (FAME) u srednjim destilatima – Metoda infracrvene spektrometrije Liquid petroleum products -- Determination of fatty acid methyl ester (FAME) content in middle distillates -- Infrared spectrometry method	2014.
23.	HRN EN ISO 10523 Kvaliteta vode – Određivanje pH vrijednosti Water quality -- Determination of pH	2012.
24.	HRN EN 872 Kakvoća vode – Određivanje suspendiranih tvari -- Metoda filtriranjem kroz filtar od staklenih vlakana Water quality -- Determination of suspended solids -- Method by filtration through glass fibre filters	2008.
25.	Vlastita metoda <i>In-house method</i> 50340079-207-21 Modificirana HRN EN 872 Određivanje suspendiranih tvari Modified HRN EN 872 -- Determination of suspended solids	2021.
26.	HRN EN 27888 Kakvoća vode – Određivanje električne vodljivosti Water quality -- Determination of electrical conductivity	2008.



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27.	HRN EN 1484 Ispitivanje vode -- Smjernice za određivanje ukupnoga organskog ugljika (UOU) i otopljenoga organskog ugljika (OOU) Water analysis -- Guidelines for the determination of total organic carbon (TOC) and dissolved organic carbon	2002.
28.	HRN EN 15751 Goriva za motorna vozila -- Metilni esteri masne kiseline (FAME) kao gorivo i mješavine s dizelskim gorivom -- Određivanje oksidacijske stabilnosti metodom ubrzane oksidacije Automotive fuels -- Fatty acid methyl ester (FAME) fuel and blends with diesel fuel -- Determination of oxidation stability by accelerated oxidation method	2014.
29.	HRN EN ISO 11885 Kvaliteta vode -- Određivanje određenih elemenata optičkom emisijom spektrometrijom Induktivno vezane plazme (ICP-OES) Water quality -- Determination of selected elements by inductively coupled plasma optical emission spectrometry (ICP-OES)	2010.
30.	HRN EN ISO 10304 – 1 Kakvoća vode -- Određivanje otopljenih aniona ionskom tekućinskom kromatografijom -- 1. dio: Određivanje bromida, klorida, fluorida, nitrata, nitrita, fosfata i sulfata Water quality -- Determination of dissolved anions by liquid chromatography of ions -- Part 1: Determination of bromide, chloride, fluoride, nitrate, nitrite, phosphate, and sulfate	2009.
31.	HRN ISO 15705 Kakvoća vode -- Određivanje indeksa kemijske potrošnje kisika (KPK) -- Metoda s malim zatvorenim epruvetama Water quality -- Determination of the chemical oxygen demand index (ST-COD) -- Small-scale sealed-tube method	2003.
32.	HRN ISO 5667- 10 Kakvoća vode -- Uzorkovanje -- 10. dio: Smjernice za uzorkovanje otpadnih voda Water quality -- Sampling -- Part 10: Guidance on sampling of wastewater	2020.
33.	HRN EN 15934 Metoda A Muljevi, obrađeni biotpad, tlo i otpad -- Izračunavanje frakcije suhe tvari nakon određivanja suhog ostatka ili sadržaja vode Sludge, treated biowaste, soil and waste -- Calculation of dry matter fraction after determination of dry residue or water content (Method A)	2013.



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34.	<p>Standard Methods for the Examination of Water and Wastewater, 24th Ed, 2540 B Total Solids Dried at 103-105 °C</p> <p>Standard Methods for the Examination of Water and Wastewater, 24th Ed, 2540 C Total Dissolved Solids Dried at 180 °C</p> <p>Određivanje ukupnih krutina na 105°C i ukupno otopljenih krutina na 180°C u vodama i eluatima Determination of total solids at 105°C and total dissolved solids at 180°C in waters and eluates</p>	2023.
35.	<p>Standard Methods for the Examination of Water and Wastewater, 24th Ed, 5520 Oil and Grease B. Liquid-Liquid, Partition-Gravimetric Method</p> <p>Određivanje sadržaja ukupnih ulja i masnoća u vodi gravimetrijski Determination of the content of total oils and fats in water gravimetrically</p>	2023.
36.	<p>HRN EN ISO 20236 Kakvoća vode–Određivanje ukupnoga organskog ugljika (TOC), otopljenoga organskog ugljika (DOC), ukupnoga vezanog dušika (TNb) i otopljenoga vezanog dušika (DNb) nakon visokotemperaturne katalitičke oksidacije</p> <p>Water quality – Determination of total organic carbon (TOC), dissolved organic carbon (DOC), total bound nitrogen (TNb) and dissolved bound nitrogen (DNb) after high temperature catalytic oxidative combustion</p>	2021.
37.	<p>Standard Methods for the Examination of Water and Wastewater, 24th Ed, 2340 B</p> <p>Calculation of total hardness</p>	2023.
38.	<p>EPA METHOD 7473</p> <p>Determination of total mercury in waste eluates</p>	2007.

Aktivnost/ Activity	Ime i prezime/Name and surname/ Potpis/Signature	Funkcija/Function	Datum/ Date
Izradio/ Prepared by	Dunja Šeremešić 	Vodeći inženjer u I&R laboratoriju/ R&D Laboratory senior engineer	10.07.2023.
Odobrio/ Approved by	Kristina Marić 	Direktor istraživanja i razvoja/ Manager of the Research and development	14.07.23