



Naziv uređaja Portabl Ramanski spektrometar	Apparatus Portable Raman spectrometer
Proizvođač i model/The manufacturer and model Ahura Scientific (now part of Thermo Fisher Scientific), Waltham, USA, PortableTruScan	
Kratak opis metode Ramanska spektroskopija je metoda koja proučava vibracione spektre, nastale rasejanjem monohromatske svetlosti iz ultraljubičaste, vidljive ili bliske infracrvene oblasti elektromagnetnog spektra na molekulima uzorka. Ramanovo rasejanje je posledica molekulskih vibracija, nastalih usled interakcije fotona svetlosti s molekulima uzorka. Ramanov spektar neke supstance čine trake na određenim talasnim brojevima ($\tilde{\nu}$), koji odgovaraju specifičnim vibracionim prelazima molekula. Na osnovu Ramanovih spektara vrši se identifikacija molekula.	Short description of the method Raman spectroscopy is a method that studies the vibrational spectra, obtained by the scattering of monochromatic light from ultraviolet, visible or near-infrared area of the electromagnetic spectrum on molecules of sample. Raman scattering is consequence of molecular vibrations resulting from the interaction of light photons with the molecules of sample. The Raman spectrum of some substance is consists of bands at certain wavenumber ($\tilde{\nu}$), corresponding to specific vibrational transitions of molecules. On the basis of Raman spectra identification of molecules can be performed.
Tehničke karakteristike Portabl Ramanski spektrometar sadrži izvor monohromatske svetlosti (laser, ekscitaciona talasna dužina 785 nm), monohrmator za razlaganje rasejane svetlosti (spektralni opseg 781–1014 nm), detektor (Silikon CCD, detekcioni mod – direktna disperzija). Opseg Raman spektra 250–2875 cm^{-1} . Obrada podataka vrši se softverom Version 1.3.x, koji omogućava i formiranja baze spektara za identifikaciju supstanci.	Technical characteristics Portable Raman spectrometer consists of a source of monochromatic light (laser, excitation wavelength 785nm), monochromator for selection of scattered light (spectral range 781–1014 nm), detector (Silicon CCD, detection mode–direct dispersion). Raman spectrum range 250–2875 cm^{-1} . Data processing is done by software Version 1.3.x, which enables spectra database formation for identification of substances.
Primena i tip uzorka Portabl Ramanski spektrometar se primenjuje za identifikaciju sirovina i proveru gotovih proizvoda. Od posebnog značaja je njegova primena za identifikaciju sirovina u farmaceutskoj i biotehnološkoj industriji. Analiziraju se organski i neorganski tečni uzorci, kao i uzorci u obliku praha.	Application and sample type Portable Raman spectrometer is used for identification of raw materials and checking the final products. It is of particular importance its use for raw materials identification in pharmaceutical and biotechnological industry. The organic and inorganic liquid, as well as powdered samples can be analyzed.
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Link ka uređaju na sajtu proizvođača / Link of the product on the manufacturer's website https://www.thermofisher.com/order/catalog/product/TRUSCANRM	