




Agenda Item 14.2.5:

Project proposal: New Recommendation
Chemical oxygen demand (COD) analysers
(photoelectrochemical oxygen demand)

Annex C.2 to OIML B 6-1: Proposal for a new project

	Proposal for a new project				
	Within:	TC	16	SC	2
	Date:	2022-08-23			
Proposer(s) (Add line if required):					
Name:	Iran	Iran National Standards Organization (INSO)			
Proposed convener(s)*:					
Mr. Masoud A. Kashani	Iran	Iran National Standards Organization (INSO)			
Type of proposed publication:	<input checked="" type="checkbox"/> New	<input type="checkbox"/> Revised			
<input checked="" type="checkbox"/> Recommendation <input type="checkbox"/> Document <input type="checkbox"/> Basic <input type="checkbox"/> Vocabulary <input type="checkbox"/> Guide					
Title of proposed publication:					
Chemical Oxygen Demand (COD) analyzers (photoelectrochemical oxygen demand)					
Terms of reference of the project, including detailed time frame in accordance with the provisions specified in B 6-1, 6.2:					
<p>Scope: This recommendation specifies general technical and metrological controls requirements for COD analyzers (automated and non-automated analyzers) which measure photocurrent originating from the oxidation of organic species contained in sample (photoelectrochemical method) and will comprise the following parts:</p> <p>Part 1 Metrological and technical requirements Part 2 Test procedures Part 3 Test report format</p> <p>Time frame: will be in accordance with OIML B 6-1:2019, 5.13.</p>					
Why should the OIML develop this publication?					
<p>With rapid industrial development and rising global populations, water quality issues are an increasing challenge world-wide. Organic pollutants are one of the main groups of environmental contaminants, causing significant effects on both human health and aquatic ecosystems. If the cleaning process fails, river / reservoir/ sea - water will get polluted and this type of water pollution will affect environment seriously. Chemical oxygen demand (COD) has been extensively employed as one of the most important indicators of the organic contamination of water. Also the data obtained from COD analyzers can be used to help make correct decisions to properly care for our environment.</p> <p>The outlet of wastewater treatment plants shall be clean with low COD based on international standards such as WHO or national Guidelines in each countries.</p> <p>COD analyzers that measure photocurrent originating from the oxidation of organic species contained in sample (photoelectrochemical method) are a good solution for measurement of COD.</p> <p>These Types of COD analyzers comparing devices that measure COD based on traditional methods:</p> <ul style="list-style-type: none"> • Do not use of the hazardous reagents, such as potassium dichromate, silver sulfate, mercuric sulfate; • Can provide a result rapidly; • Can measure COD in a portable, laboratory and online manner; • Can detect COD < 0.7mg/L 					

However, there is not an internationally harmonized standard for evaluating COD analyzers (type approval, Initial and subsequent verification) and in many countries, COD measurement is not accurate and easy due to high salinity. Therefore there is a high need for developing of this recommendation.

Countries/Economies known to, or intending to apply this publication, if applicable:

Canada

Relevant associated OIML publications:

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List of appropriate liaisons and their work related to this proposed project (include supporting documentation as necessary and reference it here):

- 1- ASTM D 8084-17
- 2- ISO 5815-1: 2019 (ISO TC 147/SC 5)
- 3- ISO 5815-2: 2003 (ISO TC 147/SC 2)
- 4- ISO 6060: 1989 (ISO TC 147/SC 2)
- 5- ISO 15705: 2002 (ISO TC 147/SC 2)

* As the OIML Member(s) of the Country(ies) holding the convenership of this project, I/we recognise the importance of TC/SC/PG secretariat/convenership work and will make available the resources to ensure the work on the publication is completed in a timely and professional manner in accordance with the provisions in OIML B 6-1 and the detailed time frame as part of this proposal.

Signature(s):

