AE-516: Design and printing of holder for H2/O2 reactor for BOLA GL14

Date: 2025-07-28
Tags: AE | CAD | Autodesk Inventor | Additive manufacturing | 3D print | photoreactor | Prusa Slicer
Category: Photoreactor
Status: Done
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Literature/reference experiments

Literature	/
Reproduction	/
Similar experiments	Photoreactor - AE-337: Development of advanced photocheistry setup

Reagents

Name	CAS Number / Experiment Number	Inventory number	Amount [mmol]	Equivalents	$Mass_{theo}$ [mg]	$Mass_{exp}$ [g]	Molar mass [g/mol]	Density (g/ml)	Volume [ml]
PLA filament (Primavalue PLA+, filamentdiameter: 1.75 mm, colour: black)	26680-10-4	/	/	/	/	ca. 10	/	/	/

Printing

Date	Time	Part	CAD file	STL file	Print Result	Needed modifications
28.07	11:00	Version 0.0	2025_07_28_Holder_H2_O2_reactor_BOLA_GL14.ipt	2025_07_28_Holder_H2_O2_reactor_BOLA_GL14.stl	worked	To wide, broke upon testing
28..07	/	Version 0.1	2025_07_28_Holder_H2_O2_reactor_BOLA_GL14_V0.1.ipt	2025_07_28_Holder_H2_O2_reactor_BOLA_GL14_V0.1.stl	worked	To wide
28..07	/	Version 0.1	2025_07_28_Holder_H2_O2_reactor_BOLA_GL14_V0.2.ipt	2025_07_28_Holder_H2_O2_reactor_BOLA_GL14_V0.2.stl	worked	To wide
28..07	/	Version 0.3	2025_07_28_Holder_H2_O2_reactor_BOLA_GL14_V0.3.ipt	2025_07_28_Holder_H2_O2_reactor_BOLA_GL14_V0.3.stl	worked	fits

Use V0.3

Linked experiments

Photoreactor - AE-337: Development of advanced photocheistry setup

Photoreactor - AE-367: Setup of advanced irradiation setup V1.0

Photoreactor - AE-515: Printing of 3rd advanced irradiation setup V1.0

Attached files

2025_07_28_Holder_H2_O2_reactor_BOLA_GL14_V0.3.stl
sha256: d131731536eb0f5e6089b76d914dbb4a66375f2b386d5eea8b87b849ffe8cff3

2025_07_28_Holder_H2_O2_reactor_BOLA_GL14_V0.3.ipt
sha256: c84d773d18b83499654df7bcac1d5966987d161ad8ac4acb4bd125ea671b5675

2025_07_28_Holder_H2_O2_reactor_BOLA_GL14_V0.1.stl
sha256: dd3a331c90bb4ad3990409ba3f5c9b597f6ded817e044c3ebb10675713c74ce6

2025_07_28_Holder_H2_O2_reactor_BOLA_GL14_V0.2.stl
sha256: 63de3c4bde1492272a48feb548c395e272c12d764b757c3a185de3746b6a3eaa

2025_07_28_Holder_H2_O2_reactor_BOLA_GL14_V0.2.ipt
sha256: 1278e11455814e36ff83e2c6e0d763a89cd44eb0c134c63c02dcdd46d21644f4

2025_07_28_Holder_H2_O2_reactor_BOLA_GL14_V0.1.ipt
sha256: 14fe92a9f1956d94b11354b76069f25a45dc8c562478e421e43078a479151c28

2025_07_28_Holder_H2_O2_reactor_BOLA_GL14.stl
sha256: cbb04d825b5447d3ca6948d4fe85d201635b8f726e0c6ea5554553904fdd44b6

2025_07_28_Holder_H2_O2_reactor_BOLA_GL14.ipt
sha256: 7c891f5ffeb381bcccbd5fff75ad3cd82567984637d94bf749c310a02a1a00e4

Unique eLabID: 20250728-463882682da054aa9533a7c261900fff6cbfb2bd
Link: https://elab.water-splitting.org/experiments.php?mode=view&id=2526