



SUPPLEMENTARY MATERIAL TO
Optimization of phenol biodegradation by immobilized *Bacillus subtilis* isolated from hydrocarbons-contaminated water using the factorial design methodology

HAMIDA HAMDI* and AMINA HELLAL

Ecole Nationale Polytechnique, Laboratoire des Sciences et Techniques de l'Environnement, 10 Avenue Hacen Badi, BP182 El Harrach, 16200 Algiers, Algeria

J. Serb. Chem. Soc. 84 (7) (2019) 679–688

TABLE S-I. Morphological and cultural characteristics of the strain

Morphological and cultural characteristics	Results
Shape	Irregular
Elevation	Flat
Gram reaction	Gram-positive, bacille form
Oxidase	+
Catalase	+

TABLE S-II. Biochemical tests of the strain (APIsystem 50CH)

Cup	Composition of test	Results
0	Control	–
1	Glycerol	+
2	Erythritol	–
3	D-Arabinose	–
4	L-Arabinose	+
5	D-Ribose	+
6	D-Xylose	+
7	L-Xylose	–
8	D-Adonitol	–
9	Methyl- β -D-xylopyranoside	+
10	Galactose	–
11	D-Glucose	+
12	D-Fructose	+
13	D-Mannose	+
14	L-Sorbose	/
15	L-Rhamnose	/
16	Dulcitol	/

* Corresponding author. E-mail: hamida.hamdi@g.enp.edu.dz

TABLE S-II. Continued

Cup	Composition of test	Results
17	Inositol	/
18	Mannitol	+
19	Sorbitol	+
20	Methyl- α -D-mannopyranoside	-
21	Methyl- α -D-glucopyranoside	+
22	<i>N</i> -Acetylglucosamine	-
23	Amygdalin	-
24	Arbutin	+
25	Aesculin	+
26	Salicin	+
27	Cellobiose	+
28	D-Maltose	+
29	D-Lactose	-
30	D-Melibiose	-
31	D-Saccharose	+
32	D-Trehalose	+
33	Inulin	+
34	D-Melezitose	-
35	D-Raffinose	-
36	Starch	+
37	Glycogen	+
38	Xylitol	-
39	Gentiobios	+
40	D-Turanose	+
41	D-Lyxose	-
42	D-Tagatose	-
43	D-Fucose	-
44	L-Fucose	-
45	D-Arabitol	-
46	L-Arabitol	-
47	Potassium gluconate	-
48	Potassium 2-ketogluconate	-
49	Potassium 5-ketogluconate	-