Supplementary Materials



Figure S1. Curdlan production by *Agrobacterium* sp. IFO 13140 immobilized in alginate, sponge-alginate loofa sponge and free cells at 30 °C and 150 rpm, at 10 days (open squares) and 15 days (closed squares gray). The immobilization conditions were 48 h of incubation, 10 mg of cells and a shaking rate of 150 rpm.



Figure S2. Curdlan production by *Agrobacterium* sp. IFO 13140: free cells (open squares) and immobilized cells (closed squares gray). Assay conditions: 10 days of incubation in production medium at 30 °C and under different agitation speeds (rpm). Different letters in different columns represent statistically-significant differences (p < 0.05).



Figure S3. FTIR spectra of curdlan from *Agrobacterium* sp. IFO 13140 (thick line) and commercial curdlan (thin line).

Input NatureTime (h)Biomass (mg)Rate (rpm)Cuture(gfL)148 (-1)10 (-1)150 (-1)Free (-1)14372 (1)10 (-1)150 (-1)Free (-1)14472 (1)10 (-1)150 (-1)Free (-1)15.5548 (-1)50 (1)150 (-1)Free (-1)11.9648 (-1)50 (1)150 (-1)Free (-1)13.7772 (1)50 (1)150 (-1)Free (-1)13.5948 (-1)10 (-1)200 (1)Free (-1)11.71048 (-1)10 (-1)200 (1)Free (-1)141272 (1)10 (-1)200 (1)Free (-1)141272 (1)10 (-1)200 (1)Free (-1)141448 (-1)50 (1)200 (1)Free (-1)151572 (1)50 (1)200 (1)Free (-1)151672 (1)50 (1)200 (1)Free (-1)141748 (-1)10 (-1)150 (-1)immobilized (1)13.21848 (-1)10 (-1)150 (-1)immobilized (1)15.152072 (1)10 (-1)150 (-1)immobilized (1)15.152148 (-1)50 (1)150 (-1)immobilized (1)15.452248 (-1)50 (1)150 (-1)immobilized (1)15.752472 (1)50 (1)150 (-1)immobilized (1)16.8 <trr>2248 (-1)<!--</th--><th>Experiment</th><th>Incubation</th><th>Initial</th><th>Shaking</th><th>Cells</th><th>Curdlan</th></trr>	Experiment	Incubation	Initial	Shaking	Cells	Curdlan
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21 $48(-1)$ $50(1)$ $150(-1)$ immobilized (1) 16.8 22 $48(-1)$ $50(1)$ $150(-1)$ immobilized (1) 16.2 23 $72(1)$ $50(1)$ $150(-1)$ immobilized (1) 17.85 24 $72(1)$ $50(1)$ $150(-1)$ immobilized (1) 17.85 24 $72(1)$ $50(1)$ $150(-1)$ immobilized (1) 17.1 26 $48(-1)$ $10(-1)$ $200(1)$ immobilized (1) 17.2 27 $72(1)$ $10(-1)$ $200(1)$ immobilized (1) 18.5 28 $72(1)$ $10(-1)$ $200(1)$ immobilized (1) 18.1 29 $48(-1)$ $50(1)$ $200(1)$ immobilized (1) 18.1 29 $48(-1)$ $50(1)$ $200(1)$ immobilized (1) 19.9 30 $48(-1)$ $50(1)$ $200(1)$ immobilized (1) 19.9 32 $72(1)$ $50(1)$ $200(1)$ immobilized (1) 19.9 33 $48(-1)$ $30(0)$ $150(-1)$ Free (-1) 15.5 34 $72(1)$ $30(0)$ $200(1)$ Free (-1) 16.8 37 $48(-1)$ $30(0)$ $200(1)$ Free (-1) 16.2 38 $72(1)$ $30(0)$ $200(1)$ immobilized (1) 17.35 40 $72(1)$ $30(0)$ $200(1)$ Free (-1) 13.2 41 $48(-1)$ $30(0)$ $200(1)$ Free (-1) 13.2 42 $72(1)$ $30(0)$ $150(-1)$ Free (-1)	20	72 (1)	10 (-1)	150 (-1)	immobilized (1)	14.9
2248 (-1)50 (1)150 (-1)immobilized (1)16.22372 (1)50 (1)150 (-1)immobilized (1)17.852472 (1)50 (1)150 (-1)immobilized (1)17.852472 (1)10 (-1)200 (1)immobilized (1)17.12648 (-1)10 (-1)200 (1)immobilized (1)17.22772 (1)10 (-1)200 (1)immobilized (1)18.52872 (1)10 (-1)200 (1)immobilized (1)18.12948 (-1)50 (1)200 (1)immobilized (1)18.33048 (-1)50 (1)200 (1)immobilized (1)18.83172 (1)50 (1)200 (1)immobilized (1)19.93272 (1)50 (1)200 (1)immobilized (1)19.93348 (-1)30 (0)150 (-1)Free (-1)16.53472 (1)30 (0)150 (-1)Free (-1)16.83748 (-1)30 (0)200 (1)Free (-1)16.83748 (-1)30 (0)200 (1)immobilized (1)17.354072 (1)30 (0)200 (1)immobilized (1)17.354072 (1)30 (0)200 (1)immobilized (1)17.354072 (1)30 (0)200 (1)immobilized (1)17.354148 (-1)30 (0)200 (1)immobilized (1)18.24148 (-1)30 (0)200 (1)Free (-1)	21	48 (-1)	50(1)	150 (-1)	immobilized (1)	16.8
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2472 (1)50 (1)150 (-1)immobilized (1)18.52548 (-1)10 (-1)200 (1)immobilized (1)17.12648 (-1)10 (-1)200 (1)immobilized (1)17.22772 (1)10 (-1)200 (1)immobilized (1)18.52872 (1)10 (-1)200 (1)immobilized (1)18.12948 (-1)50 (1)200 (1)immobilized (1)18.83048 (-1)50 (1)200 (1)immobilized (1)18.83172 (1)50 (1)200 (1)immobilized (1)19.93272 (1)50 (1)200 (1)immobilized (1)19.93348 (-1)30 (0)150 (-1)Free (-1)16.53472 (1)30 (0)150 (-1)Free (-1)16.53548 (-1)30 (0)200 (1)Free (-1)16.83748 (-1)30 (0)150 (-1)immobilized (1)15.63948 (-1)30 (0)200 (1)immobilized (1)15.63948 (-1)30 (0)200 (1)immobilized (1)18.24148 (-1)30 (0)200 (1)Free (-1)13.24272 (1)30 (0)150 (-1)Free (-1)13.24472 (1)30 (0)200 (1)Free (-1)14.64348 (-1)30 (0)200 (1)Free (-1)14.74548 (-1)30 (0)200 (1)Free (-1)14.7 <td>23</td> <td>72(1)</td> <td>50(1)</td> <td>150 (-1)</td> <td>immobilized (1)</td> <td>17.85</td>	23	72(1)	50(1)	150 (-1)	immobilized (1)	17.85
2548 (-1)10 (-1)200 (1)immobilize (1)17.12648 (-1)10 (-1)200 (1)immobilized (1)17.22772 (1)10 (-1)200 (1)immobilized (1)18.52872 (1)10 (-1)200 (1)immobilized (1)18.12948 (-1)50 (1)200 (1)immobilized (1)17.33048 (-1)50 (1)200 (1)immobilized (1)18.83172 (1)50 (1)200 (1)immobilized (1)19.93272 (1)50 (1)200 (1)immobilized (1)193348 (-1)30 (0)150 (-1)Free (-1)15.53472 (1)30 (0)200 (1)Free (-1)16.53548 (-1)30 (0)200 (1)Free (-1)16.83748 (-1)30 (0)150 (-1)immobilized (1)15.63948 (-1)30 (0)200 (1)immobilized (1)15.63948 (-1)30 (0)200 (1)immobilized (1)15.63948 (-1)30 (0)200 (1)immobilized (1)17.354072 (1)30 (0)200 (1)Free (-1)13.24148 (-1)30 (0)150 (-1)Free (-1)13.24272 (1)30 (0)200 (1)Free (-1)14.64348 (-1)30 (0)200 (1)Free (-1)14.64472 (1)30 (0)200 (1)Free (-1)14.7 <tr <tr=""></tr>	24	72(1)	50(1)	150 (-1)	immobilized (1)	18.5
26 $48(-1)$ $10(-1)$ $200(1)$ immobilized (1) 17.2 27 $72(1)$ $10(-1)$ $200(1)$ immobilized (1) 18.5 28 $72(1)$ $10(-1)$ $200(1)$ immobilized (1) 18.1 29 $48(-1)$ $50(1)$ $200(1)$ immobilized (1) 17.3 30 $48(-1)$ $50(1)$ $200(1)$ immobilized (1) 17.3 30 $48(-1)$ $50(1)$ $200(1)$ immobilized (1) 19.9 32 $72(1)$ $50(1)$ $200(1)$ immobilized (1) 19.9 32 $72(1)$ $50(1)$ $200(1)$ immobilized (1) 19 33 $48(-1)$ $30(0)$ $150(-1)$ Free (-1) 15.5 34 $72(1)$ $30(0)$ $200(1)$ Free (-1) 16.5 35 $48(-1)$ $30(0)$ $200(1)$ Free (-1) 16.8 37 $48(-1)$ $30(0)$ $150(-1)$ immobilized (1) 17.35 40 $72(1)$ $30(0)$ $200(1)$ immobilized (1) 17.35 40 $72(1)$ $30(0)$ $200(1)$ immobilized (1) 18.2 41 $48(-1)$ $30(0)$ $150(-1)$ Free (-1) 13.2 42 $72(1)$ $30(0)$ $150(-1)$ Free (-1) 12.3 44 $72(1)$ $30(0)$ $200(1)$ Free (-1) 14.6 43 $48(-1)$ $30(0)$ $200(1)$ Free (-1) 14.7 45 $48(-1)$ $30(0)$ $200(1)$ Free (-1) <td>25</td> <td>48 (-1)</td> <td>10(-1)</td> <td>200(1)</td> <td>immobilized (1)</td> <td>17.1</td>	25	48 (-1)	10(-1)	200(1)	immobilized (1)	17.1
27 $72(1)$ $10(-1)$ $200(1)$ immobilized (1) 18.5 28 $72(1)$ $10(-1)$ $200(1)$ immobilized (1) 18.1 29 $48(-1)$ $50(1)$ $200(1)$ immobilized (1) 17.3 30 $48(-1)$ $50(1)$ $200(1)$ immobilized (1) 18.8 31 $72(1)$ $50(1)$ $200(1)$ immobilized (1) 19.9 32 $72(1)$ $50(1)$ $200(1)$ immobilized (1) 19.9 32 $72(1)$ $50(1)$ $200(1)$ immobilized (1) 19.9 33 $48(-1)$ $30(0)$ $150(-1)$ Free (-1) 15.5 34 $72(1)$ $30(0)$ $200(1)$ Free (-1) 16.5 35 $48(-1)$ $30(0)$ $200(1)$ Free (-1) 16.8 37 $48(-1)$ $30(0)$ $200(1)$ Free (-1) 16.8 37 $48(-1)$ $30(0)$ $200(1)$ Free (-1) 16.4 38 $72(1)$ $30(0)$ $200(1)$ Free (-1) 16.4 39 $48(-1)$ $30(0)$ $200(1)$ Free (-1) 13.2 40 $72(1)$ $30(0)$ $200(1)$ immobilized (1) 18.2 41 $48(-1)$ $30(0)$ $150(-1)$ Free (-1) 13.2 42 $72(1)$ $30(0)$ $150(-1)$ Free (-1) 12.3 44 $72(1)$ $30(0)$ $200(1)$ Free (-1) 14.6 43 $48(-1)$ $30(0)$ $200(1)$ Free (-1) 14.7 <td>26</td> <td>48 (-1)</td> <td>10(-1)</td> <td>200(1)</td> <td>immobilized (1)</td> <td>17.2</td>	26	48 (-1)	10(-1)	200(1)	immobilized (1)	17.2
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30 $48(-1)$ $50(1)$ $200(1)$ immobilized (1) 18.8 31 $72(1)$ $50(1)$ $200(1)$ immobilized (1) 19.9 32 $72(1)$ $50(1)$ $200(1)$ immobilized (1) 19 33 $48(-1)$ $30(0)$ $150(-1)$ Free (-1) 15.5 34 $72(1)$ $30(0)$ $150(-1)$ Free (-1) 16.5 35 $48(-1)$ $30(0)$ $200(1)$ Free (-1) 16.5 36 $72(1)$ $30(0)$ $200(1)$ Free (-1) 16.8 37 $48(-1)$ $30(0)$ $200(1)$ Free (-1) 16.8 37 $48(-1)$ $30(0)$ $150(-1)$ immobilized (1) 16.1 38 $72(1)$ $30(0)$ $200(1)$ immobilized (1) 15.6 39 $48(-1)$ $30(0)$ $200(1)$ immobilized (1) 17.35 40 $72(1)$ $30(0)$ $200(1)$ immobilized (1) 18.2 41 $48(-1)$ $30(0)$ $150(-1)$ Free (-1) 13.2 42 $72(1)$ $30(0)$ $150(-1)$ Free (-1) 14.6 43 $48(-1)$ $30(0)$ $200(1)$ Free (-1) 14.7 44 $72(1)$ $30(0)$ $200(1)$ Free (-1) 14.7 44 $72(1)$ $30(0)$ $200(1)$ Free (-1) 14.7 44 $72(1)$ $30(0)$ $200(1)$ Free (-1) 14.7 45 $48(-1)$ $30(0)$ $150(-1)$ Free (-1) 14.7 <td>29</td> <td>48(-1)</td> <td>50(1)</td> <td>200(1)</td> <td>immobilized (1)</td> <td>17.3</td>	29	48(-1)	50(1)	200(1)	immobilized (1)	17.3
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32 $72(1)$ $50(1)$ $200(1)$ immobilized (1) 19 33 $48(-1)$ $30(0)$ $150(-1)$ Free (-1) 15.5 34 $72(1)$ $30(0)$ $150(-1)$ Free (-1) 16.5 35 $48(-1)$ $30(0)$ $200(1)$ Free (-1) 13.3 36 $72(1)$ $30(0)$ $200(1)$ Free (-1) 16.8 37 $48(-1)$ $30(0)$ $200(1)$ Free (-1) 16.8 37 $48(-1)$ $30(0)$ $150(-1)$ immobilized (1) 16.1 38 $72(1)$ $30(0)$ $200(1)$ immobilized (1) 15.6 39 $48(-1)$ $30(0)$ $200(1)$ immobilized (1) 17.35 40 $72(1)$ $30(0)$ $200(1)$ immobilized (1) 18.2 41 $48(-1)$ $30(0)$ $150(-1)$ Free (-1) 13.2 42 $72(1)$ $30(0)$ $200(1)$ Free (-1) 12.3 44 $72(1)$ $30(0)$ $200(1)$ Free (-1) 12.3 44 $72(1)$ $30(0)$ $200(1)$ Free (-1) 14.7 45 $48(-1)$ $30(0)$ $150(-1)$ immobilized (1) 17.55	31	72 (1)	50 (1)	200(1)	immobilized (1)	19.9
33 $48(-1)$ $30(0)$ $150(-1)$ Free (-1) 15.5 34 $72(1)$ $30(0)$ $150(-1)$ Free (-1) 16.5 35 $48(-1)$ $30(0)$ $200(1)$ Free (-1) 13.3 36 $72(1)$ $30(0)$ $200(1)$ Free (-1) 16.8 37 $48(-1)$ $30(0)$ $200(1)$ Free (-1) 16.8 37 $48(-1)$ $30(0)$ $150(-1)$ immobilized (1) 16.1 38 $72(1)$ $30(0)$ $150(-1)$ immobilized (1) 15.6 39 $48(-1)$ $30(0)$ $200(1)$ immobilized (1) 17.35 40 $72(1)$ $30(0)$ $200(1)$ immobilized (1) 18.2 41 $48(-1)$ $30(0)$ $150(-1)$ Free (-1) 13.2 42 $72(1)$ $30(0)$ $150(-1)$ Free (-1) 14.6 43 $48(-1)$ $30(0)$ $200(1)$ Free (-1) 14.7 44 $72(1)$ $30(0)$ $200(1)$ Free (-1) 14.7 45 $48(-1)$ $30(0)$ $150(-1)$ Free (-1) 14.7	32	72(1)	50(1)	200(1)	immobilized (1)	19
34 $72(1)$ $30(0)$ $150(-1)$ Free (-1) 16.5 35 $48(-1)$ $30(0)$ $200(1)$ Free (-1) 13.3 36 $72(1)$ $30(0)$ $200(1)$ Free (-1) 16.8 37 $48(-1)$ $30(0)$ $200(1)$ Free (-1) 16.8 37 $48(-1)$ $30(0)$ $150(-1)$ immobilized (1) 16.1 38 $72(1)$ $30(0)$ $150(-1)$ immobilized (1) 15.6 39 $48(-1)$ $30(0)$ $200(1)$ immobilized (1) 17.35 40 $72(1)$ $30(0)$ $200(1)$ immobilized (1) 18.2 41 $48(-1)$ $30(0)$ $150(-1)$ Free (-1) 13.2 42 $72(1)$ $30(0)$ $150(-1)$ Free (-1) 14.6 43 $48(-1)$ $30(0)$ $200(1)$ Free (-1) 14.7 44 $72(1)$ $30(0)$ $200(1)$ Free (-1) 14.7 45 $48(-1)$ $30(0)$ $150(-1)$ Free (-1) 14.7	33	48(-1)	30(0)	150(-1)	Free (-1)	15.5
35 $48(-1)$ $30(0)$ $200(1)$ Free (-1) 13.3 36 $72(1)$ $30(0)$ $200(1)$ Free (-1) 16.8 37 $48(-1)$ $30(0)$ $200(1)$ Free (-1) 16.8 37 $48(-1)$ $30(0)$ $150(-1)$ immobilized (1) 16.1 38 $72(1)$ $30(0)$ $150(-1)$ immobilized (1) 15.6 39 $48(-1)$ $30(0)$ $200(1)$ immobilized (1) 17.35 40 $72(1)$ $30(0)$ $200(1)$ immobilized (1) 18.2 41 $48(-1)$ $30(0)$ $150(-1)$ Free (-1) 13.2 42 $72(1)$ $30(0)$ $150(-1)$ Free (-1) 14.6 43 $48(-1)$ $30(0)$ $200(1)$ Free (-1) 12.3 44 $72(1)$ $30(0)$ $200(1)$ Free (-1) 14.7 45 $48(-1)$ $30(0)$ $150(-1)$ immobilized (1) 17.55	34	72(1)	30(0)	150(-1)	Free (-1)	16.5
36 $72(1)$ $30(0)$ $200(1)$ $Free(-1)$ 16.8 37 $48(-1)$ $30(0)$ $150(-1)$ immobilized (1) 16.1 38 $72(1)$ $30(0)$ $150(-1)$ immobilized (1) 15.6 39 $48(-1)$ $30(0)$ $200(1)$ immobilized (1) 17.35 40 $72(1)$ $30(0)$ $200(1)$ immobilized (1) 18.2 41 $48(-1)$ $30(0)$ $200(1)$ immobilized (1) 18.2 42 $72(1)$ $30(0)$ $150(-1)$ Free (-1) 13.2 42 $72(1)$ $30(0)$ $150(-1)$ Free (-1) 14.6 43 $48(-1)$ $30(0)$ $200(1)$ Free (-1) 12.3 44 $72(1)$ $30(0)$ $200(1)$ Free (-1) 14.7 45 $48(-1)$ $30(0)$ $150(-1)$ immobilized (1) 17.55	35	48(-1)	30(0)	200(1)	Free (-1)	13.3
37 $48(-1)$ $30(0)$ $150(-1)$ $1100(-1)$ 37 $48(-1)$ $30(0)$ $150(-1)$ $1mmobilized(1)$ 16.1 38 $72(1)$ $30(0)$ $150(-1)$ $1mmobilized(1)$ 15.6 39 $48(-1)$ $30(0)$ $200(1)$ $1mmobilized(1)$ 17.35 40 $72(1)$ $30(0)$ $200(1)$ $1mmobilized(1)$ 18.2 41 $48(-1)$ $30(0)$ $150(-1)$ $Free(-1)$ 13.2 42 $72(1)$ $30(0)$ $150(-1)$ $Free(-1)$ 14.6 43 $48(-1)$ $30(0)$ $200(1)$ $Free(-1)$ 12.3 44 $72(1)$ $30(0)$ $200(1)$ $Free(-1)$ 14.7 45 $48(-1)$ $30(0)$ $150(-1)$ $Irce(1)$ 17.55	36	72(1)	30(0)	200(1)	Free (-1)	16.8
31 $10 (1)$ $30 (0)$ $100 (1)$ $100 (1)$ $100 (1)$ $100 (1)$ 38 $72 (1)$ $30 (0)$ $150 (-1)$ immobilized (1) 15.6 39 $48 (-1)$ $30 (0)$ $200 (1)$ immobilized (1) 17.35 40 $72 (1)$ $30 (0)$ $200 (1)$ immobilized (1) 18.2 41 $48 (-1)$ $30 (0)$ $150 (-1)$ Free (-1) 13.2 42 $72 (1)$ $30 (0)$ $150 (-1)$ Free (-1) 14.6 43 $48 (-1)$ $30 (0)$ $200 (1)$ Free (-1) 12.3 44 $72 (1)$ $30 (0)$ $200 (1)$ Free (-1) 14.7 45 $48 (-1)$ $30 (0)$ $150 (-1)$ immobilized (1) 17.55	37	48(-1)	30(0)	150(-1)	immobilized (1)	16.1
36 $72(1)$ $30(0)$ $150(1)$ $150(1)$ $150(1)$ 39 $48(-1)$ $30(0)$ $200(1)$ $immobilized(1)$ 17.35 40 $72(1)$ $30(0)$ $200(1)$ $immobilized(1)$ 18.2 41 $48(-1)$ $30(0)$ $150(-1)$ Free (-1) 13.2 42 $72(1)$ $30(0)$ $150(-1)$ Free (-1) 14.6 43 $48(-1)$ $30(0)$ $200(1)$ Free (-1) 12.3 44 $72(1)$ $30(0)$ $200(1)$ Free (-1) 14.7 45 $48(-1)$ $30(0)$ $150(-1)$ immobilized(1) 17.55	38	72(1)	30(0)	150(-1)	immobilized (1)	15.6
30 10 (1) 30 (0) 200 (1) $1000000000000000000000000000000000000$	39	$\frac{72}{48}(-1)$	30(0)	200(1)	immobilized (1)	17 35
40 $72(1)$ $30(0)$ $200(1)$ $1000000000000000000000000000000000000$	40	72(1)	30(0)	200(1)	immobilized (1)	18.2
41 $48(-1)$ $50(0)$ $150(-1)$ $14cc(-1)$ 15.2 42 $72(1)$ $30(0)$ $150(-1)$ $Free(-1)$ 14.6 43 $48(-1)$ $30(0)$ $200(1)$ $Free(-1)$ 12.3 44 $72(1)$ $30(0)$ $200(1)$ $Free(-1)$ 14.7 45 $48(-1)$ $30(0)$ $150(-1)$ immobilized (1) 17.55	40	$\frac{72}{48}(-1)$	30(0)	150(-1)	$\frac{1}{1}$	13.2
42 $72 (1)$ $30 (0)$ $130 (1)$ 14.0 43 $48 (-1)$ $30 (0)$ $200 (1)$ $Free (-1)$ 12.3 44 $72 (1)$ $30 (0)$ $200 (1)$ $Free (-1)$ 14.7 45 $48 (-1)$ $30 (0)$ $150 (-1)$ immobilized (1) 17.55	42 1	72(1)	30 (0)	150(-1)	Free (-1)	17.2
45 $46 (-1)$ $56 (0)$ $200 (1)$ 14.5 44 $72 (1)$ $30 (0)$ $200 (1)$ Free (-1) 14.7 45 $48 (-1)$ $30 (0)$ $150 (-1)$ immobilized (1) 17.55	42	$\frac{72}{48}(-1)$	30(0)	200(1)	Free (-1)	123
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		72(1)	30(0)	200(1)	$\frac{1}{\text{Eree}} \left(-1\right)$	14.5
40 (-1) 50 (0) 150 (-1) IIIIII00112cu (1) 17.55	44 15	$\frac{12}{12}$	30(0)	200(1) 150(-1)	$\frac{1}{1} = \frac{1}{1}$	14,/
46 72(1) 30(0) 150(-1) immobilized (1) 17.05	43 16	$\frac{40}{72}$ (1)	30(0)	150(-1) 150(-1)	immobilized (1)	17.55
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	40	$\frac{12}{18}$	30(0)	200(-1)	immobilized (1)	17.05
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	47	72 (1)	30(0)	200(1)	immobilized (1)	18 4

Table S1. Factors and levels of the asymmetric factorial design $2^3 \times 3^1$ used for the test optimization of *Agrobacterium* sp. IFO 13140 immobilization.