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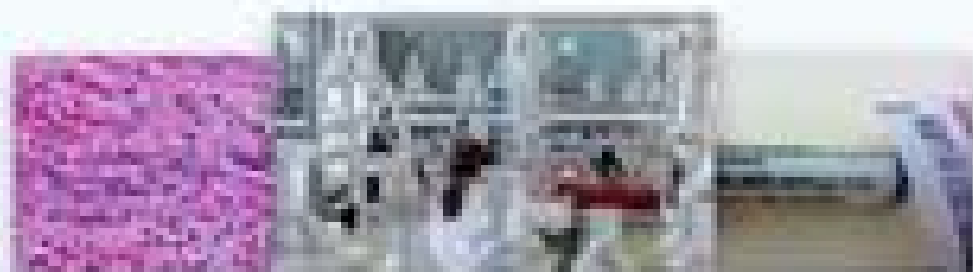
Chemistry for Alaska Wellbore

Energy, Health, Food, Water, Environment, Safety

and the Environment of the Arctic, Alaska

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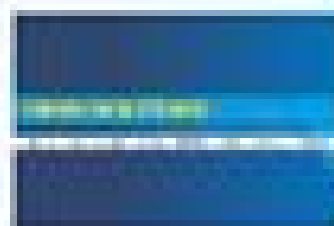
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Symposium Program

Day 1: Tuesday, August 6th, 2019

Venue: IPB International Convention Center (IICC), Botani Square, Jl. Pajajaran, Bogor, West Java Indonesia

Time	Agenda		
08.00-08.45	Registration		
08.45-09.10	Welcoming Speech		
09.10-09.15	Opening Ceremony		
09.15-09.30	<i>Coffee Break</i>		
09.30-09.55	Plenary session Invited Speaker session: Prof Tsuyoshi Kawai		
09.55-10.20	Plenary session Invited Speaker session: Assoc Prof Yuan-Chung Cheng		
10.20-10.35	Discussion		
10.35-11.00	Plenary session Invited Speaker session: Prof Masaki Kita		
11.00-11.25	Plenary session Invited Speaker session: Prof Dr Dyah Iswantini		
11.25-11.40	Discussion		
11.40-12.10	Technical Presentation		
12.10-13.15	<i>Lunch</i>		
13.15-14.00	Poster Session I and Sponsor Stand Tour		
14.00-15.30	Parallel session		
	Ballroom 1 Invited Speaker: Shuichi Shinma, Ph.D OP A1-A5	Ballroom 2 Invited Speaker: Akhnad Sabarudin, D.Sc OP B1-B5	Meeting Room B Invited Speaker: Prof Lee Wah Lim OP C1-C5
	Meeting Room C Invited Speaker: Novriyandi Hanif, D.Sc OP D1-D5	Meeting Room D Invited Speaker: Prof Asep Kadarohman OP E1-E5	Meeting Room E Invited Speaker: Dr. Dodi Safari OP F1-F5
	Meeting Room F OP G1 – G7	Adenium Room OP H1 – H7	Plumeria Room OP I1 – I7
15.30-16.00	<i>Coffee Break</i>		
16.00-16.50	Parallel session		
	Ballroom 1 : OP A6 – A10	Ballroom 2 : OP B6 – B10	Meeting Room B: OP C6 – C10
	Meeting Room C: OP D6 – D10	Meeting Room D: OP E6 – E10	Meeting Room E: OP F6 – F10
	Meeting Room F: OP G8 – G12	Adenium Room: OP H8 – H12	Plumeria Room: OP I8 – I12
16.50-17.00	Discussion		
18.30-21.00	Gala Dinner		

Name	ID submission	Code	Day	Room	Time
Siti Nurbayti	268	G20	7 Agt	Room F	13.30-13.40
Sri Kadarwati	346	I17	7 Agt	Plumeria Room	11.10-11.20
Sri Mulijani	161	I10	6 Agt	Plumeria Room	16.20-16.30
Sri Mulijani	337	I11	6 Agt	Plumeria Room	16.30-16.40
Sri Sugiarti	73	G11	6 Agt	F Room	16.30-16.40
Sri Yadiat Chalid	8	F1	6 Agt	Room E	14.30-14.40
Sry Wahyuni	67	B3	6 Agt	Ballroom 2	14.50-15.00
Sry Wahyuni	205	B8	6 Agt	Ballroom 2	16.20-16.30
Subandi	375	F22	7 Agt	Room E	14.40-14.50
Sudirman	43	I8	6 Agt	Plumeria Room	16.00-16.10
Suharso	15	C1	6 Agt	Room B	14.30-14.40
Sutrisno	368	B22	7 Agt	Ballroom 2	14.40-14.50
Syafrizayanti	27	F2	6 Agt	Room E	14.40-14.50
Tanto Budi Susilo	118	H15	7 Agt	Adenium Room	10.50-11.00
Tatas H.P. Brotosudarmo	352	D23	6 Agt	Plumeria Room	16.40-16.50
Teguh Pambudi	122	C5	6 Agt	Room B	15.10-15.20
Triana Kusumaningsih	33	E8	6 Agt	Room D	16.20-16.30
Trianda Ayuning Tyas	105	G13	7 Agt	Room F	10.20-10.30
Uswatun Hasanah	153	B1	6 Agt	Ballroom 2	14.30-14.40
Verra Nurmaylinda	134	H22	7 Agt	Adenium Room	13.50-14.00
Vina Juliana	309	D21	7 Agt	Room C	14.40-14.50
Wahyu Prasetyo Utomo	299	E22	7 Agt	Room D	14.40-14.50
Waringin Margi Yusmaman	144	G24	7 Agt	Room F	14.30-14.40
Wega Trisunaryanti	74	H10	6 Agt	Adenium Room	16.20-16.30
Widia Wati	133	H21	7 Agt	Adenium Room	13.40-13.50
Wilis Okti Pamungkas	338	F19	7 Agt	Room E	14.00-14.10
Winda Andika	355	E6	6 Agt	Room D	16.00-16.10
Wynona Agatha Nimpoeno	84	H12	6 Agt	Adenium Room	16.40-16.50
Yehezkiel Steven Kurniawan	112	B4	6 Agt	Ballroom 2	15.00-15.10
Yessi Permana	125	A20	7 Agt	Ballroom 1	14.20-14.30
Yohanes Martono	246	D15	7 Agt	Room C	11.30-11.40
Yohanis Irenius Mandik	322	B12	7 Agt	Ballroom 2	11.00-11.10
Yosua	354	F21	7 Agt	Room E	14.30-14.40
Yuana Nurulita	148	D8	6 Agt	Room C	16.20-16.30
Yuki Omote	85	G1	6 Agt	F Room	14.00-14.10
Yuki Orikasa	69	E13	7 Agt	Room D	11.10-11.20
Yuki Orikasa	203	I13	7 Agt	Plumeria Room	10.20-10.30
Yulia Eka Putri	139	E17	7 Agt	Room D	13.40-13.50
Yulian Syahputri	377	B20	7 Agt	Ballroom 2	14.20-14.30
Yuningsih Budiman	102	A18	7 Agt	Ballroom 1	13.50-14.00
Yusi Deawati	280	F17	7 Agt	Room E	13.40-13.50
Yusraini Dian Inayati Siregar	36	C3	6 Agt	Room B	14.50-15.00

Use of *LS* As Natural Green Inhibitor of Calcium Carbonate Scale Formation

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Abstract. The application of natural green inhibitors to inhibit scale formation of inorganic materials have become a necessity these days considering the many inhibitors are used in the industry are not environmentally friendly and expensive. In this research, it has been investigated the green inhibitors from natural products called *LS* Inhibitor. Analysis with the GC-MS (gas chromatography–mass spectrometry) shows that the main chemical compositions of *LS* inhibitor consisted of acetic acid (more than 50 %) and phenol (more than 15 %). Testing of *LS* inhibitor was performed by seeded experiment method at temperature of 90 °C and concentration of calcium carbonate (CaCO₃) growth solution of 0.050 M. The results showed that the higher the inhibitor concentration added the greater the effectiveness of the inhibitor in inhibiting the formation of CaCO₃ crystals accompanied by the decrease in pH of the solution. It is concluded that the addition of *LS* inhibitor in the concentration range of 50-350 ppm in CaCO₃ crystal growth solution at the concentration of 0.050 M is able to inhibit the scale formation of CaCO₃ around 27-278 %.

Keywords: Green inhibitor, CaCO₃ crystal, scale formation, seeded experiment.