

URL	TITLE	ABSTRACT	AUTHORS	PUBLICATION
http://dx.doi.org/10.1016/j.petrol.2017.07.062	Nanotechnology for oilfield applications: Challenges and impact		Lau H.	Journal of Petroleum Science and Engineering
http://ieeexplore.ieee.org/xpl/articleDetails.jsp?tp=&arnumber=6357479&contentType=Conference+Publications	Influence of kaolin ignition temperature changes on the strength qualities of proppants	The article describes investigation of the influence of kaolin ignition temperature of 900°C, 980°C and 1100°C on the strength of proppants. It was established that the ignition temperature of kaolin has a significant influence on the strength of the proppant. It was revealed that the ignition of kaolin at a temperature of 980°C and higher temperatures causes the appearance of poorly crystallized defective mullite - imperfection of the crystal structure. The presence of defective mullite activates the sintering process (consolidation and hardening) of proppant granules, which provides a proppant with higher strength at the same temperatures (1450°C). In this case the active crystallization of cristobalite from the melt during the sintering roasting reduces the total amount of glass phase in the material, which in its turn is beneficial to increase the strength of the proppants.	A. A. Reshetova; T. V. Vakalova; L. P. Govorova; E. A. Domukhovskaya	2012 7th International Forum on Strategic Technology (IFOST)

<http://www.sciencedirect.com/science/article/pii/S2405656115000693>

A comprehensive review on proppant technologies

The main function of traditional proppants is to provide and maintain conductive fractures during well production where proppants should meet closure stress requirement and show resistance to diagenesis...

Feng Liang, Mohammed Sayed, Ghaithan A. Al-Muntasheri, Frank F. Chang, Leiming Li

Petroleum

https://link.springer.com/chapter/10.1007/978-3-662-04101-7_6

Economic Significance, Survey of Applications, and Six Bonding Functions

Phenolic Resins

http://ieeexplore.ieee.org/xpl/articleDetails.jsp?tp=&arnumber=6136457&contentType=Conference+Publications	Comparative characterization study of Malaysian sand for possible use as proppant	This paper presents a review on published literature and experimental works on Malaysian sands for possible use as proppant, specifically those from Terengganu coastal area. This includes examination on characteristics of sand samples and selection of experiments for proppant testing. Sand samples from identified areas were tested according to particle size distribution, density, roundness and sphericity, and shear strength. Results from sand samples were compared against proppant specifications set by API RP 56 and selected commercial proppants. Performed direct shear tests revealed that there is also a close relationship between the local sand properties and industry proppant. The present study found that the size distribution, sphericity and bulk density of Terengganu sands are at par with some of commercial proppants. The performance of Terengganu sand in shear strength is significantly higher than commercial proppants. Nevertheless, Terengganu sand samples do not completely surpass the required roundness for use as proppant.	Dahlila Kamat; Ismail Mohd Saaid; Suhaila Muhammad	2011 National Postgraduate Conference
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<http://www.sciencedirect.com/science/article/pii/S0375650515000723>

Proppant backflow:
Mechanical and flow
considerations

One of the concerns of using proppant in geothermal wells, and particularly in enhanced geothermal systems, is proppant flowback. Particulate proppant maintain post-closure conductivity in hydraulically...

J. McLennan, I. Walton,
J. Moore, D. Brinton, J. Lund
Geothermics

Petroleum production
engineering: Second
Edition

Guo B.

Petroleum Production
Engineering: Second
Edition

https://link.springer.com/chapter/10.1007/978-3-319-40124-9_11

Experimental and
Numerical Investigation
of Mechanical
Interactions of
Proppant and Hydraulic
Fractures

Congrui Jin

New Frontiers in Oil and
Gas Exploration

http://ieeexplore.ieee.org/xpl/articleDetails.jsp?tp=&arnumber=7442474&contentType=Conference+Publications	Study on the effect of silica fume with low calcium geopolymer properties for oil well cementing	Increasing concern of greenhouse gas emission had been a chief highlight in inducing global warming. Application of Ordinary Portland Cement (OPC) for oil well cementing contributes a large portion for these gases, and therefore, geopolymeric technology is proposed to help curb down CO₂ emission by replacing OPC. However, enough justification has to be shown to ensure the new technology is reliable enough to replace OPC for oil well cementing. This study aims to study the effect of silica fume addition to low calcium fly ash geopolymer cement by focusing on compressive strength and other properties such as thickening time, fluid loss and acid resistance test. Low calcium fly ash pose geopolymeric properties besides having a very low utilization rate which justify fly ash as our base material. Further analysis on structure of cement was done via FTIR, EDX and FESEM studies. Five different composition of varying silica fume (SF) content (0, 5, 10, 15 and 20%) was prepared and cured under wellbore condition (3000 psi and 200 F) slurry was 21minutes (static) and 36minutes (dynamic) and fluid loss rate 32 ml. Geopolymer cement has good resistance up to 10% HCl enough to withstand acidizing operations in wellbore. Compared to Class G cement (without additive), geopolymer cement pose higher compressive strength and lower thickening time with high fluid loss rate. Thus, it's proven that geopolymer cement can be applicable as a replacement material for Class G cement from a shallow to medium depth cementing process. It helps to reduce greenhouse gas emissions.	Maheswaren Sugumaran; Raja Rajeswary Suppiah	2015 International Field Exploration and Development Conference (IFEDC 2015)
https://link.springer.com/chapter/10.1007/978-3-642-25614-1_5	Frac-and-Pack Completion			Sand Control in Well Construction and Operation

DATE	TYPE	DOI
August 2017	Journal article	10.1016/j.petrol.2017.07.062
	2012 Conference publication	10.1109/IFOST.2012.6357479

March 2016	Review article	10.1016/j.petlm.2015.11.001
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	2000 Book chapter	10.1007/978-3-662-04101-7_6
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2011 Conference publication 10.1109/NatPC.2011.61
36457

September 2015

10.1016/j.geothermics.
2015.06.006

10 March 2017

Book book

2016 Book chapter

10.1007/978-3-319-
40124-9_11

2015 Conference publication 10.1049/cp.2015.0598

2012 Book chapter 10.1007/978-3-642-
25614-1_5