

CONTENTS

SUMMARIES	213
JACEK HENDEL, TOMASZ ŚLIWA, ANDRZEJ GONET, RAFAŁ ŁUCZAK, ŁUKASZ GAŁUSZKA, JOANNA KOWALCZYK Demand for heat from rock mass and borehole heat exchangers for a ventilation system in case of the auditorium at the Faculty of Drilling, Oil and Gas at AGH UST in Krakow	223
STANISŁAW RYCHLICKI, JERZY STOPA Directions of development of Polish gas and oil	237
YEN ADAMS SOKAMA-NEUYAM, JANN RUNE URSIN Experimental and theoretical investigations of CO ₂ injectivity	245
JANN RUNE URSIN Gas-condensate banking and well deliverability. A comparative study using analytical- and numerical models	259
JANN RUNE URSIN Recognizing and describing processes in producing and abandoned oil- and gas reservoirs that may cause environment footprints and identifying technologies to impair these	291
TADEUSZ NIEZGODA, DANUTA MIEDZIŃSKA, SEBASTIAN STANISŁAWEK, MICHAŁ KWIETNIEWSKI Overview of issues related to mixing CO ₂ and proppant in the method of gas extraction from shale rocks	307
VITALII KULYNYCH, MICHAŁ MARUTA ALOHA – modern tool for modeling the risks associated with the spread of volatile pollutants in extraction of hydrocarbons	315
O.R. KONDRAT, N.M. HEDZYK Enhanced natural gas recovery from low-permeable reservoirs	323

LEWIS A. BUITRAGO GOMEZ, STEFAN Z. MISKA, MAŁGORZATA B. ZIAJA Experimental study of layouts of PDC cutters in core bit drilling	341
B.V. KOPEY, T.A. KRYVONozhko, M.M. LIakh, E.V. YURIEV Mathematical model of gas-liquid-sand mixture separation in the four-phase separator of inertial type for subsea application	361
TOMASZ WŁODEK, MARIUSZ ŁACIAK, KATARZYNA KUROWSKA, ŁUKASZ WĘGRZYN Thermodynamic analysis of hydrogen pipeline transportation – selected aspects	379
DAN MANIU DUSE, CARMEN SONIA DUSE Open Educational Resources (OER) in gas and petroleum engineering education	397
LESZEK LANKOF, KRZYSZTOF POLAŃSKI, JAROSŁAW ŚLIZOWSKI, BARBARA TOMASZEWSKA Possibility of energy storage in salt caverns	405
JAN ZIAJA, VASYL MOVCHAN Pulling force simulation of jet bits in radial drilling technology	417
SZYMON KUCZYŃSKI, KRYSZTIAN LISZKA, MARIUSZ ŁACIAK, ANDRII OLIINYK, ROBERT STRODS, ADAM SZURLEJ Technological and safety aspects of CNG home fast refueling units	425
RAFAŁ KOWALSKI, KRYSZTIAN LISZKA, MARIUSZ ŁACIAK, ANDRII OLIINYK Pressure regulating station at actual conditions	433
ANDRZEJ GONET, JERZY FIJAŁ, ALEKSANDRA JAMROZIK, STANISŁAW STRYCZEK, TORLEIV BILSTAD Categorization of the drilling waste as a criterion of selecting the methods of their detoxication, recovery and management	447
MARCIN RZEPKA, STANISŁAW STRYCZEK, MARCIN KREMIEŃSKI, RAFAŁ WIŚNIEWSKI, EDYTA DĘBIŃSKA Recipes of cement slurries for sealing casing in deep wellbores	455

SŁAWOMIR WYSOCKI, ANNA WÓJTOWICZ, MAGDALENA GACZOŁ	
Influence of ionic hydration's inhibitors on swelling of clays and shales	471
TOMASZ ŚLIWA, GILLES DECAN, ANETA SAPIŃSKA-ŚLIWA, ANNA BIEDA, TOMASZ KOWALSKI	
Comparative analysis of borehole heat exchanger use in different climatic conditions	483
DAN PAUL ȘTEFĂNESCU, OKI ARI MAULIDANI, BERYL AUDREY	
Compressor application for extending production life cycle in mature fields	495
DAN PAUL ȘTEFĂNESCU, ALEXANDRU NITULETE	
Noninvasive stimulation opportunities in a marginal gas field	507
TOMASZ BLACHARSKI, PIOTR JANUSZ, MACIEJ KALISKI, ŁUKASZ ZABRZESKI	
The effect of hydrogen transported through gas pipelines on the performance of natural gas grid	515
FLORINEL ȘUȚOIU, ION FOIDAȘ, MIHAIL AVRAMESCU	
Operations for improving the gas flow in the wellbore adjacent zone	531
MONIKA CEPIL, CZESŁAW RYBICKI	
Application of compact separators in development of nonconventional gas reservoirs	549
Style Sheet	561