



中国矿业大学资源与地球科学学院 “强优拓新”学科发展系列讲座

报告主题： Coal: Plants, Palaeoclimate and What Happens with Deep Geological Burial

报告专家： TIM A. MOORE 教授； Roman C Pausch 教授；
O. Marvin Moroeng 博士

报告时间： 2023年6月27日—2023年6月29日

报告地点： 资源与地球科学学院 B401

报告人简介：

Dr. Moore works as adjunct associate professor in Queensland University of Technology, University of Canterbury and distinguished visiting professor in China University of Mining and Technology.



He is the Principal Advisor of Sinopec Oil & Gas Australia Pty Ltd, principal geologist/asset geologist of Australian Pacific LNG (APLNG), senior advisor/chief geologist of Ephindo Energy Ltd and Senior Advisor of Dart Energy Ltd.

Dr Pausch works as a Plant Biologist, Gas and Environmental Specialist in Cipher Consulting Pty Ltd. 30 years of field and laboratory experience in measuring gas of all types and at all pressures. Acts as chief advisor on plant anatomy and the indicators of climate from plant physiology. He has a long history of research in stable isotopes. He has investigated the use of the inter-relationships of stable isotopes in natural abundance as indicators of environmental stress and ecosystem vitality and investigated the mechanism of O₃ damage in soybeans i.e. C translocation, and C and N uptake and fixation under field conditions using open-top chambers and stable isotopes.



Dr Moroeng is a lecturer at the Department of Geology, University of Johannesburg, South Africa. Dr Marvin has published several high-level articles as the first author and received several research funding; also supervised several students as a mentor to complete their projects. He previously acted as peer-reviewer for Energy & Fuels, Journal of the South African Institute of Mining and Metallurgy, and Fuel. He is also a member of Geological Society of South Africa (GSSA), Fossil Fuel Foundation (FFF) and Geochemical Society



主办单位：资源与地球科学学院

煤层气资源与成藏过程教育部重点实验室

矿区深部零碳负碳技术教育部工程研究中心

资源勘查工程国家级一流专业建设点

中国矿业大学地热资源研究中心

国际煤地质中心

矿山水害防治技术基础研究国家级专业中心实验室

COAL: PLANTS, PALAEOCLIMATE AND WHAT HAPPENS WITH DEEP GEOLOGICAL BURIAL

Date	Time from	To	Total Time (Hr)	Lecture #	Lecture Title	Lecturer
2023/6/27	8:30	8:50	0:20	1	Introduction of Course Materials and Instructors	All
	8:50	10:00	1:10	2	Modern & ancient peat-forming environments	Tim A Moore
	10:00	10:10	0:10		Coffee break	
	10:10	11:10	1:00	3	Macro- and microscopic constituents of coal	Tim A Moore
	11:15	11:30	0:15		Discussion/Questions	
2023/6/28	8:30	9:30	1:00	4	Anatomical differences between gymnosperm and angiosperm wood; what can we see in coal?	Roman C Pausch
	9:30	10:15	0:45	5	Physical and chemical changes of organic material with burial	Tim A Moore
	10:15	10:20	0:05		Coffee break	
	10:20	11:20	1:00	6	Contact metamorphism of inertinite-rich coals, South Africa	O. Marvin Moroeng
	11:20	11:30	0:10		Discussion/Questions	
2023/6/29	8:30	9:30	1:00	7	The influence of climate and plant processes on CO ₂ uptake, water use, and the ¹³ C isotopic composition of organic matter.	Roman C Pausch
	9:30	10:30	1:00	8	Use of stable isotopes of carbon and nitrogen in studying coal	O. Marvin Moroeng
	10:30	10:40	0:10		Coffee break	
	10:40	11:30	0:50	9	Fossil sunshine: Coal as a time machine	Tim A Moore
	11:30	14:30	3:00		LUNCH	
	14:30	16:30	2:00	10	Fundamentals of coal seam gas geology	Tim A Moore
	16:30	17:15	0:45		Summation/Discussion/Questions	ALL