

Submarine Channel Complex Deposits of the Middle Ordovician  
Lashizhong Formation in Zhuozishan Area, Inner Mongolia

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**Abstract:** Turbidity current deposits of the middle Ordovician Lashizhong Formation well developed in Zhuozishan Area. Based on field work and thin section analysis, the lithotypes and its relationship have been studied, and five lithofacies and three submarine channel complex deposits have been identified. According to integrated analysis on sedimentary characteristics of channel complex deposits, a depositional model for the submarine channels of Lashizhong Formation is proposed. The study indicates that the lower submarine channel complex deposits mainly consisted of sandstones with fining and thinning upwards stacking patterns, resulting from obvious lateral migration and vertical aggradation of the channel complex, which probably located at the region of sinuous submarine channel;The middle and upper channel complexes consist of sandstones extending stably on the lateral side, both with the thin alternating layers of siltstones and shales in the upper part, resulting from vertical aggradation of the channel complex, which probably located at the terminus of channels.

**Key words:** submarine channel complex deposits; channel complex; the Middle Ordovician; Lashizhong Formation; Zhuozishan area

《地质论评》等被遴选为“2013 中国最具国际影响力学术期刊”

据发布,《地质论评》等继 2012 年之后,继续被中国学术期刊(光盘版)电子杂志社、清华大学图书馆、中国学术文献国际评价研究中心遴选为“2013 中国最具国际影响力学术期刊”。

在 2013 年度的遴选中,定义了期刊国际影响力指数(Clout Index, *CI*)。对于自然科学和工程技术类学术期刊,*CI* 是以被 SCI(即美国科技情报研究所的 Science Citation Indes)统计源期刊引用的数据基础计算得出。公式为:

$$CI = \sqrt{2} - \sqrt{(1 - A)^2 + (1 - B)^2}$$

其中,*A* 为某期刊在 SCI 中的影响因子(非 SCI 期刊为被 SCI 统计源期刊引用的影响因子)经线性归一法标准化后的标准值,*B* 为某期刊在 SCI 中的总被引频次(非 SCI 期刊为被 SCI 统计源期刊引用的总被引频次)经线性归一法标准化后的标准值,*A*、*B* 均在 0~1 之间。

2013 年参与遴选的科技期刊共 3502 个。*CI* 在前 5% 的学术期刊被遴选为“中国最具国际影响力学术期刊”(表1),

表 1 与地质学有关的部分“2013 中国最具国际影响力学术期刊”

刊名	<i>CI</i> ×1000	总被引 频次	影响 因子	刊名	<i>CI</i> ×1000	总被引 频次	影响 因子	刊名	<i>CI</i> ×1000	总被引 频次	影响 因子
Chinese Science Bulletin	588.3	7447	0.973	地质论评	107.7	955	0.279	冰川冰土	73.7	659	0.178
岩石学报	262.0	2498	0.609	地质通报	104.8	962	0.231	地球科学	72.4	585	0.256
Acta Geologica Sinica(E)	226.7	1720	0.985	地球物理学报	100.6	911	0.236	岩石矿物学杂志	71.8	482	0.385
地质学报	203.4	1602	0.808	地球化学	99.2	777	0.386	高校地质学报	71.0	566	0.262
岩石力学与 工程学报	188.5	1883	0.294	岩土工程学报	87.3	853	0.123	古生物学报	68.1	504	0.302
地学前缘	134.4	1152	0.405	中国科学(D 辑)	82.4	726	0.215	石油勘探与开发	67.9	475	0.338
岩土力学	112.6	1120	0.146	地球学报	78.3	516	0.432	中国地质	65.8	528	0.237
矿床地质	111.0	733	0.612	煤炭学报	76.6	701	0.165	石油学报	60.9	552	0.136
				第四纪研究	76.0	616	0.267	地球科学进展	55.8	521	0.147
				古脊椎动物学报	75.8	513	0.400	自然资源学报	57.8	507	0.151
				科学通报	75.3	714	0.131				

Characteristics and Origin of Granite Hilltop Potholes in Mount Laoshan

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**Abstract:** An argument about granite hilltop potholes in north part of China has continued for a long time, based on detail observation on morphological feature and distribution of granite hilltop potholes, as granite hilltop potholes in other places in north part of China, hilltop potholes in Mount Laoshan also have a characteristics of a smaller mouth, bigger belly and flat bottom. Potholes have a water outlet, apart above the level of water outlet is the part of smaller mouth, the other part below the level of the water outlet is main part of pothole, this part really is bigger belly. According to these characteristics of potholes, it is recognized that pothole was formed and developed by ice erosion on inner wall of pothole by ice in winter. Because no ice above the level of water outlet in pothole, there is no ice erosion, brim of pothole is formed. below the level of water outlet in pothole, there is continuously eroded by ice in winter, the bigger belly is formed. Meanwhile, growth of granite hilltop potholes must satisfy the following conditions: positioning on top of mountain, no sediment and water except rainwater can fall in hilltop potholes. With ice erosion an explanation of characteristics and origin of Laoshan granite hilltop potholes is given. It is recognized that form—growth—destroy of Laoshan granite hilltop potholes is the result of modern ice erosion. It is proceeding now, no relationship with quaternary glaciation.

**Key words:** Laoshan granite; granite hilltop potholes; ice erosion

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从图 1 可以看出,未进入 SCI 检索系统的“中国最具国际影响力学术期刊”或“中国国际影响力优秀学术期刊”被 SCI 统计源期刊他引的影响因子和总被引频次已经高于国内外许多 SCI 统计源期刊。

需要指出,正如发布者所声明:“描述学术期刊某方面整体特征的计量指标,只是在统计意义上反映期刊某方面、某时期的总体传播效果,并不给出任一论文的任何统计数据,更非说明一篇论文的学术价值。那种将期刊计量指标夸大为论文评价指标的错误做法,扭曲了期刊计量评价的本意,危害学术规范,诱发不良学风。为此,发布单位严肃声明,CNKI-JCR 的指标以及期刊的国际影响力排名,绝非论文学术价值的评价指标,希望有关方面正确使用。”

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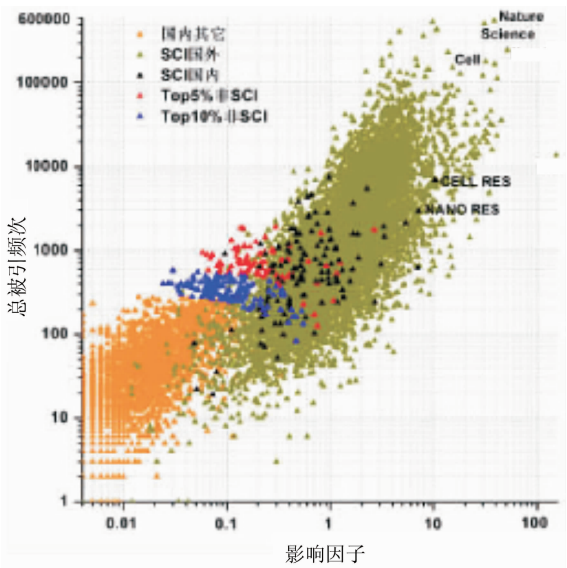


图 1 中国国际影响力 TOP10 与 SCI 统计源科技学术期刊影响因子和总被引频次对比图