记 账 凭 证

页号：1/2

震局地球物理研究所 0001 账套　　凭证日期：2022-04-19　　凭证编号：JZ-4-0161(财)

摘　要	科目名称	借方金额	贷方金额
防灾减灾工程技术中心肖亮报销英文期刊版面费2405	业务活动费用/商品和服务支出/科研/[0221503]课题3:考虑注采影响的地震灾害风险评估技术及防控方法研究--肖亮/科技部/[2060302]社会公益研究/其他往来单位/[0606]其他	9,389.70	
防灾减灾工程技术中心肖亮报销英文期刊版面费2405--都桑	银行存款/自有经费存款/88户		9,389.70
财务会计合计：玖仟叁佰捌拾玖元柒角整		9,389.70	9,389.70

会计主管：陶帅　　记账：陶帅　　审核：陶帅　　制单：刘莉　　出纳：

记 账 凭 证

页号：2/2

单位：中国地震局地球物理研究所 0001 账套　　凭证日期：2022-04-19　　凭证编号：JZ-4-0161(预)

摘　要	科目名称	借方金额	贷方金额
防灾减灾工程技术中心肖亮报销英文期刊版面费2405	事业支出/项目支出/科研/[0221503]课题3:考虑注采影响的地震灾害风险评估技术及防控方法研究--肖亮/科技部/[2060302]社会公益研究/[3020202]版面费/[0606]其他	9,389.70	
防灾减灾工程技术中心肖亮报销英文期刊版面费2405	资金结存/货币资金/银行存款/自有经费存款/88户		9,389.70
预算会计合计：玖仟叁佰捌拾玖元柒角整		9,389.70	9,389.70

会计主管：陶帅　　记账：陶帅　　审核：陶帅　　制单：刘莉　　出纳：

地球物理所内部转帐支票

日期：2022年 4 月 11 日　　支票号码：0212405

422 (48)

室名称	项目号：022150

人民币（大写）玖仟叁佰捌拾玖元柒角	百	十	万	千	百	十	元	角	分
			¥	9	3	8	9	7	0

用途	英文期刊版面费
项目负责人签章： 支票使用人签章：	肖亮

日期　2022-04-11

肖亮
肖亮

	核定金额
	9389.70
计金额	9389.70

冲 销 借 款 信 息

借款单号		本次还款金额		借款金额	
合计				应付（退）	9389.70

单位负责人：　　分管所领导：　　分管财务所领导：

部门负责人：　　项目负责人：肖亮　　经办人：张莉

审核部门负责人：　　财务室主任：陶帅　　会计审核人：刘莉

付款明细					
类别	账户	账号	消费日期	开户行	金额
转账汇款	都燊	6212260200098027481	/	中国工商银行魏公村支行	9,389.70

中国地震局地球物理研究所通用经费报销单

422 (46)

单号 BX15204320220411000218　　日期 2022-04-11

处室名称	防灾减灾工程技术中心			报销人	肖亮	
项目名称	0221503课题3：考虑注采影响的地震灾害风险评估技术及防控方法研究—肖亮			项目负责人	肖亮	
报销事由	英文期刊版面费					
报销事项	金额	备注				核定金额
日常费用报销	9,389.70					9389.70
合计金额（小写）	9,389.70	合计金额（大写）	玖仟叁佰捌拾玖元柒角		核定合计金额	9389.70

冲 销 借 款 信 息

借款单号		本次还款金额		借款金额	
合计				应付（退）	9389.70

单位负责人：　　分管所领导：　　分管财务所领导：

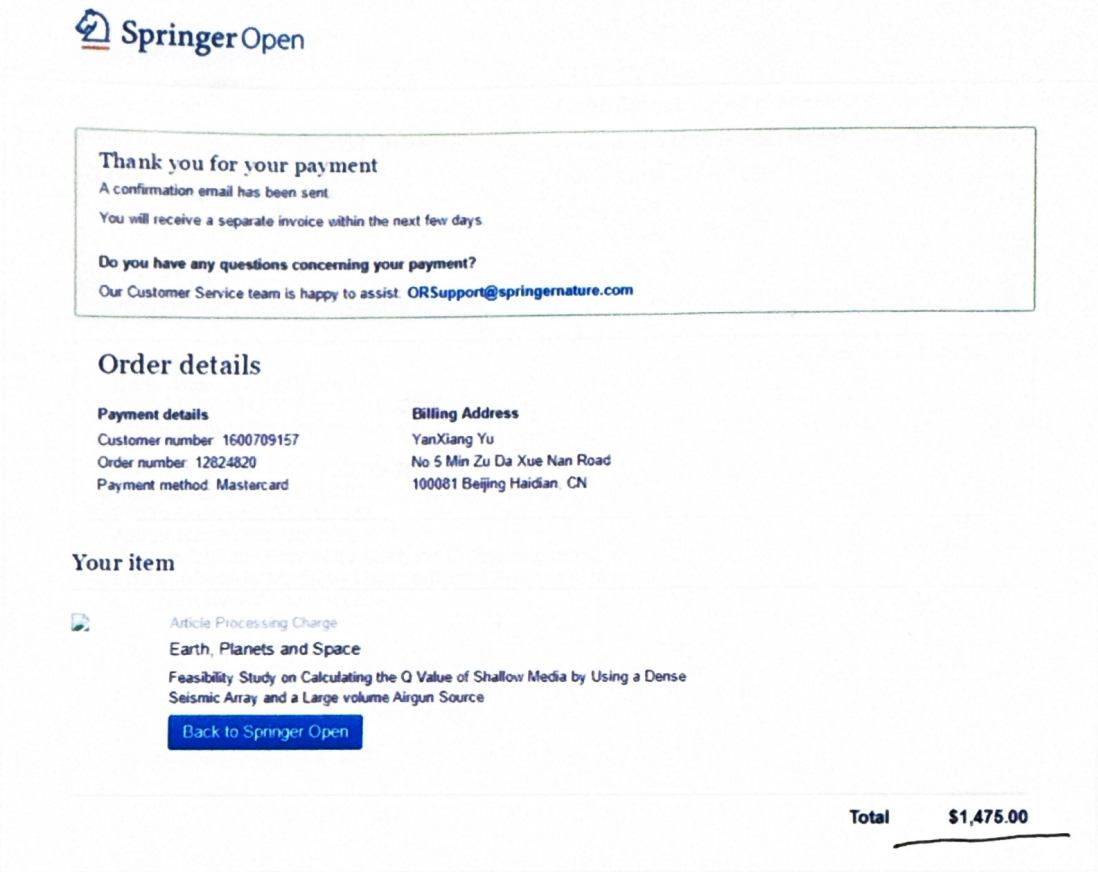
部门负责人：　　项目负责人：古院　　经办人：张莉

审核部门负责人：　　财务室主任：陶帅　　会计审核人：刘莉

付款明细					
类别	账户	账号	消费日期	开户行	金额
转账汇款	都燊	6212260200098027481	/	中国工商银行魏公村支行	9,389.70


96% 09:46
通知
的外币交易入账后会记入您的信用卡人民币账单，可轻松还款人民币。点击下方“查看详情”了解功能说明。
查看详情 >
交易成功
1,475.00
交易卡号：尾号6457招行信用卡
交易时间：04月07日09:43
交易类型：网上消费
交易币种：美元
交易商户：BIOMED CENTRAL LONDON GBRGB
额度查询
查看当前额度
安全中心
领免费用卡保障
查账还款
查询交易明细
我要借钱
现金快速到账

交易截图



SpringerOpen

Thank you for your payment

A confirmation email has been sent

You will receive a separate invoice within the next few days

Do you have any questions concerning your payment?

Our Customer Service team is happy to assist: **ORSupport@springernature.com**

Order details

Payment details	**Billing Address**
Customer number: 1600709157	YanXiang Yu
Order number: 12824820	No 5 Min Zu Da Xue Nan Road
Payment method: Mastercard	100081 Beijing Haidian CN

Your item

Article Processing Charge

Earth, Planets and Space

Feasibility Study on Calculating the Q Value of Shallow Media by Using a Dense Seismic Array and a Large volume Airgun Source

Back to Springer Open

Total **$1,475.00**

美元汇率

4月7日，人民币兑美元中间价报6.3659，调升140个基点。前一交易日中间价报6.3799，在岸人民币16:30收盘价报6.3636，23:30夜盘收报6.3588。

报销金额：6.3659 × 1475 = 9389.7

BioMed Central Limited
The Campus
4 Crinan Street
London N1 9XW
United Kingdom

Phone: +44 (0) 20 3192 2009
Email:
accounts@biomedcentral.com
VAT ID GB823826326

SpringerOpen

No.	Finance Account No.	Customer Account No.	Purchase Order No.	Customer VAT ID	Date	Pages
564424	> 1600709157	> 1600709157	>	>	07.04.2022	1 / 1

Bill to

BioMed Central Ltd. | The Campus | 4 Crinan Street | London N1 9XW

> YanXiang Yu
China Earthquake Administration
No.5 Min Zu Da Xue Nan Road
BEIJING HAIDIAN 100081
China

Ship to

YanXiang Yu
China Earthquake Administration
No.5 Min Zu Da Xue Nan Road
BEIJING HAIDIAN 100081
China

Quantity	Product No.	Description	List Price	Disc. %	VAT	Amount
1	40623E	Earth, Planets and Space Order: 0012824820 Position: 000010 Article Processing Charge	1,475.00		A	1,475.00
		Manuscript ID: 1040011105204790 Submission Date: 05.11.2021 Publication Date: 07.04.2022 Author Name: YanXiang Yu Manuscript Title: Feasibility Study on Calculating the Q Value of Shallow Media by Using a Dense Seismic Array and a Large volume Airgun Source				

Net Value Goods C	0,00	**Net Value Goods B**	0,00	**Net Value Goods A**	1.475,00	**Total Net Value of Goods**	1.475,00
Net Shipping Costs C	0,00	**Net Shipping Costs B**	0,00	**Net Shipping Costs A**	0,00	**Total Net Shipping Costs**	0,00
Total Net C	0,00	**Total Net B**	0,00	**Total Net A**	1.475,00	**Total Net Due**	1.475,00
Incoterms CPT	**VAT C**	**VAT B**		**VAT A**		**Total VAT**	0,00
Units		**Weight**	0,000 KG	**Delivery Method**	RoW Standard	**Subtotal**	1.475,00
						Prepaid	1.475,00
						TOTAL DUE **USD**	**0,00**

Settlement via webshop

Thank you for your order!

Payment Information: Please ensure you enclose a copy of this invoice or quote the invoice number in full. Failure may result in a delay to your service.

Please do not send credit card details.
Please contact creditcard@springernature.com, quoting your invoice number, for a secure payment link to be sent to you. Please note that, for security purposes, you should never send credit card details by email.

Bank Transfer (BACS): Bank address is for bank transfer purposes only.
DO NOT MAIL CHEQUES TO BANK ADDRESS
Account Name: BioMed Central Ltd Bankers: Deutsche Bank AG Bank
Address: Unter den Linden 13/15, 10117 Berlin, Germany
Account No: 025773300, IBAN: DE18 1007 0000 0025 7733 00, BIC DEUTDEBBXXX

According to our policy, Springer Nature is no longer accepting paper checks.
Please use our electronic payment methods as mentioned above.
Thank you.

BMC
Part of Springer Nature

Earth, Planets and Space

Feasibility Study on Calculating the Q Value of Shallow Media by Using a Dense Seismic Array and a Large volume Airgun Source

--Manuscript Draft--

Manuscript Number:	EPSP-D-21-00259R4
Full Title:	Feasibility Study on Calculating the Q Value of Shallow Media by Using a Dense Seismic Array and a Large volume Airgun Source
Article Type:	Full paper
Section/Category:	Seismology
Funding Information:	National Key R&D Program of China (2020YFA0710603) — Dr. Liang Xiao National Natural Science Foundation of China (41974069) — Not applicable National Natural Science Foundation of China (41790463) — Not applicable Basic R&D Operations Special Fund of the Institute of Geophysics, China Earthquake Administration (DQJB21Z09) — Not applicable
Abstract:	The feasibility of using a dense seismic array with an airgun source to study the quality factors of shallow media is verified. Data were obtained from 37 stations in the dense seismic array located in Binchuan, Yunnan Province, China, and the amplitude-distance attenuation method and the coda normalization method were applied to calculate the S-wave quality factors in the area. The amplitude-distance attenuation method yielded [[EQUATION]] , and the frequency-dependent [[EQUATION]] calculated by the coda normalization method can be expressed by the power law [[EQUATION]] . The consistency between the results of these two methods shows that a dense seismic array with an airgun source can be used to study the attenuation characteristics of shallow media . The amplitudes at some points deviate substantially from the fitted curve and thus have a certain influence on the fitting results; hence, we must select high-precision data for the calculation. Given the topography, we speculate that the anamalous stations located on the edge of the Binchuan Basin and in the western hilly area are due to the edge effect of the basin and the weak attenuation of the hilly area and that the anomalous station located in the northern Binchuan depocenter is attributable to local site factors. Compared with the [[EQUATION]] estimated by previous studies, the [[EQUATION]] in the Binchuan area is found to lie between those of the hard soil and sedimentary rock and is similar to the [[EQUATION]] in the North China Basin, corresponding to the shallow velocity structure in this area .
Corresponding Author:	Yanxiang Yu Institute of Geophysics China Earthquake Administration CHINA
Corresponding Author E-Mail:	yuyx@cea-igp.ac.cn
Corresponding Author Secondary Information:	
Corresponding Author's Institution:	Institute of Geophysics China Earthquake Administration
Corresponding Author's Secondary Institution:	
First Author:	Shen Du
First Author Secondary Information:	
Order of Authors:	Shen Du YanXiang Yu Liang Xiao

ICBC 中国工商银行 业务回单（付款凭 证

4月22日

2112000074

名：中国地震局地球物理研究所　　付款人开户行：海淀西区紫竹院支行

账号（卡号）：0200007609088104715

人户名：都燊　　收款人开户行：工行北京分行业务处理中心

款人账号（卡号）：6212260200098027481

金额：玖仟叁佰捌拾玖元柒角　　小写：9,389.70元

业务（产品）种类：汇划发报　凭证种类：000000000　　凭证号码：00000000000000000

摘要：版面费　用途：版面费　　币种：人民币

交易机构：0020000998 记账柜员：00012 交易代码：00929　　渠道：网上银行

客户附言:46 用途:版面费 汇出行:0020000998 汇出行名称:工行北京分行业务处理中心 汇入行:0020000998

指令编号:HQF900004293510-46 提交人:LT1111.c.0200 最终授权人:TYT0805.c.0200

中国工商银行股份有限公司 北京紫竹院支行 业务专用章 48D10F5D7006

本回单为第1次打印，注意重复　　打印日期：2022年05月09日　　打印柜员：0

210×99 银博 2013年4月版

财务会计合计：捌佰元整		800.00	800.00

会计主管：陶帅　　记账：陶帅　　审核：陶帅　　制单：刘莉　　出纳：

记 账 凭 证

页号：2/2

单位：中国地震局地球物理研究所 0001 账套　　凭证日期：2022-04-19　　凭证编号：JZ-4-0162(预)

摘　要	科目名称	借方金额	贷方金额
三室潘佳铁报销验收会议专家咨询费1671	事业支出/项目支出/科研/[0321901]四川南部页岩气示范区多尺度流动地震台网观测实验/基本科研业务费/[2060302]社会公益研究/[3022601]专家咨询费/[0305]其他	800.00	
三室潘佳铁报销验收会议专家咨询费1671	财政拨款预算收入/项目支出/财政授权支付/2060302		800.00
预算会计合计：捌佰元整		800.00	800.00

会计主管：陶帅　　记账：陶帅　　审核：陶帅　　制单：刘莉　　出纳：