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Cover Page, Introduction, Contents, Call for Papers, All papers in one file

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	electrodes. The initial pH of the electrolyte drops at the beginning of the process as a result of the addition of the iron oxide ore. This is attributed to the physiochemical interaction between the ore and electrolyte. At constant process time and voltage, increase in the current supplied increases the mass of Fe deposited on the cathode. [Academia Arena, 2010;2(7):7-10] (ISSN 1553-992X). **Keywords:** Assessment, Supplied Electricity, Solution pH, Electro-extraction, Iron, Haematite		
3	**Standardization of extraction of genomic DNA and PCR-RFLP conditions of *Allium stracheyi*: A high altitude plant** Shashi Ranjan[1] Garima Kishore[1], Vikash S Jadon [1], JP Bhatt [2] and Sanjay Gupta[1] [1]Department of Biotechnology, SBS PG Institute of Biomedical Sciences & Research, Balawala, Dehradun, Uttarakhand, India [2] Department of Zoology and Biotechnology, HNB Garhwal University, Srinagar, Uttarakhand, India *Corresponding Author E-mail: shashiranjan16@gmail.com **Abstract** DNA extraction is difficult in many plants because of metabolites that interfere with DNA isolation procedures and subsequent applications such as DNA restriction, amplification and cloning. We developed a simple, rapid and efficient method for isolating genomic DNA from seeds of *Allium stracheyi* that is free from polysaccharides and polyphenols. This newly developed protocol include the use of 2.5 M NaCl, 3% polyvinylpyrrolidone (PVP), 3% mercaptoethanol, 0.15% sodium sulfite, and 80% ethanol in the extraction as well as reducing the centrifugation times during the separation and precipitation of the DNA. Isolated genomic DNA showed high purity and high quantity. The purity of isolated genomic DNA was confirmed by biophotometric analyses ($A_{260/280}$ of 1.840). [Academia Arena, 2010;2(7):11-14] (ISSN 1553-992X). **Key words:** DNA isolation, *Allium stracheyi*, Secondary metabolites, Seeds & Polyphenols	Full Text	3
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	Abstract: Cellulases are important group of enzymes which are used for the conversion of lignocellulosic biomass into a variety of products. *Trichoderma viride*-FBL1 was employed for the production of CMCase enzyme in solid state fermentation using wheat straw as a substrate. The substrate was physico-chemically pretreated with different concentrations of HCl/NaOH to enhance the CMCase yield. 2% HCl for pretreatment of wheat straw was found suitable treatment for maximum enzyme yield. Various cultural conditions were also optimized and optimum parameters found were initial medium pH of 5, incubation temperature of 45^{o}C, substrate level of 15g, initial moisture content of 40%, inoculum size of 5% for seven days of fermentation period. Various extractants such as distilled water, Tab water, Tween-81, 0.2M citrate buffer (pH 4.8) and 0.2M citrate-phosphate buffer (pH 5.0) was used to recover the enzyme from fermented mash and distilled water was found best extractant. The enzyme produced from *Trichoderma viride* show its optimum activity at pH 5 using citrate buffer with incubation time of 15min. [Academia Arena, 2010;2(7):18-30] (ISSN 1553-992X). **Key words:** Wheat straw, Pretreatment, CMCase, Trichoderma viride, Solid state fermentation		
6	**Management of Job-Related Teacher Burnout in Nigerian Schools** Lekia Nwikina[1], Anthonia Nwanekezi[2] 1. Department of Educational Management University of Port Harcourt 2. Department of Curriculum Studies University of Port Harcourt omadesope@yahoo.co.uk **Abstract:** The paper helps teachers in Nigerian schools manage burnout, an emotional exhaustion from excessive demands on their energy, strength, and resources. It helps them, to understand the burnout syndrome, the causes, symptoms, prevention and remedies. It emphasizes that burnout is experienced by many Nigerian school teachers and that it need not be a silent disease. It recommends that further research is necessary to document its incidence upon the teacher's physical condition and the student's education. Exposing its causes, symptoms, and types of prevention is vital if it is to be eliminated among teachers. It recommends also that management should hold regular meetings that can be used for staff support; should foster a sense of teamwork among the staff; restructure jobs so that teachers do not unduely spend as much time with particularly demanding students and assignments. Workshops in stress management or time management should be mounted regularly. [Academia Arena, 2010;2(7):31-38] (ISSN 1553-992X). **Key words**: Job-Related Teacher Burnout, Nigerian Schools	Full Text	6
7	**对黑洞的新观念和完整论证：黑洞内部根本没有奇点（上篇）***** ==**黑洞：所有黑洞之最后命运就是由于发射霍金辐射而收缩成为宇宙中的最小引力黑洞** ($M_{bm} = m_p = 1.09\times10^{-5}$g,) **在爆炸中消亡于普郎克领域** Planck Era, **不可能塌缩成为奇点** == **张 洞 生** Dongsheng Zhang E-mail: *ZhangDS12@hotmail.com* 1957 **年毕业于北京航空学院, 即现在的北京航天航空大学** 1/10/2009 **笛卡儿：“在怀疑中寻找真理.”** **New York Science Journal 2009,2(2)** **原 25页** **【内容提要】** **:在本文中，作者没有提出任何假设和附加条件，直接推导出“任何黑洞的引力塌缩不可能成为奇点，而是变成为等于普朗克粒子** m_p **的最小黑洞** M_{bm}**，即** $M_{bm} = M_{bm} = (hC/8\pi G)^{1/2} = 1.09\times10^{-5}$g**”，而爆炸消失在普郎克领域** Planck Era**。本文证明的关键在于：不官黑洞内部的状态和结构，只研究黑洞视界半径** R_b **上的变化，结果，黑洞视界半径** R_b **和质量** M_b **因向外发射霍金量子辐射，最后收缩成为最小黑洞** $M_{bm} = M_{bm} = 1.09\times10^{-5}$g **而消失在普朗克领域，不可能继续塌缩成为奇点。广义相对论方程（**GTRE**）的基本缺陷是其中没有热力学作用以对抗引力的收缩，所以无限收缩的结果必然会出现奇点。这就是** S.**霍金和** R.**彭罗斯推导广义相对论方程的杰出成就。 现在本文根据霍金的黑洞理论公式结合其他的可靠的经典理论公式对黑洞视界半径** R_b **的收缩进行推导后，得出正确而极其重要的结果。因为霍金的黑洞理论公式是以热力学和量子力学为基础，而与广义相对论方程无关。本文得出的最重要的新公式是：** $m_{ss} M_b = hC/8\pi G = 1.187\times10^{-10}g^2$ (1d) **在上面的**(1d)**中，** M_b **是黑洞质量，** m_{ss} **是黑洞视界半径** R_b **上的霍金量子辐射的相当质量，** $m_{ss} M_b$ **的成绩居然是一个常数。这就把对黑洞的研究变成为一个非常简单的问题。不仅如此，由于** $M_b \neq 0$, **和** $m_{ss} \neq 0$,	Full Text	7

	所以 M_b 和 m_{ss} 也都不可能为无限大，因此二者都必定有其极限。根据宇宙中任何事物中，其部分不可能大于全体的公理，m_{ss} 和 M_b 在极限的情况下，最大的 m_{ss} 只能等于最小的 M_b。因此由(1d)可得出， $m_{ss} = M_b = M_{bm} = (hC/8\pi G)^{1/2} = m_p = 1.09 \times 10^{-5}g$ (1f) 公式 (1f) 就是本文中最重要、正确的最终结论。它本身就已经表明黑洞M_b和R_b的最终塌缩不是奇点，而是普朗克粒子m_p。由于时空在普朗克领域失去了连续性，广义相对论方程在普朗克领域失效，m_p 不可能再收缩为密度无限大的奇点。本文是对霍金的黑洞理论的进一步发展，还得出来许多新观点和新结论。在科学上有这样的说法，最简单的往往是第一流的。本文的论证方法确实是最简单的。但是否能入流，顺其自然吧。 [Academia Arena, 2010;2(7):39-63] (ISSN 1553-992X). 【关键词】。黑洞 (BH); 最小黑锅 M_{bm}; 奇点；恒星级黑洞； 普朗克粒子--m_p; 普朗克领域；霍金辐射—HQR; 广义相对论方程 (GTRE); 恒星级黑洞-; 宇宙原初小黑洞		
8	**对广义相对论方程和当代科学界一些主流的新观念的理解和质疑** **====对广义相对论与许多近代物理学新观念的质疑，比如，奇点，黑洞，霍金辐射，宇宙起源，普朗克领域，宇宙黑洞，真空能，宇宙常数====** **张 洞 生 Dongsheng Zhang 新 1212 1/24/2010** 1957 年毕业于北京航空学院,即现在的北京航天航空大学 E-mail: *ZhangDS12@hotmail.com* 【内容摘要】：现在爱因斯坦的广义相对论方程几乎与所有当代的物理学的新观念联系在一起。比如，宇宙起源，奇点，黑洞，零点能，真空能，N 维空间等等。然而，已经观测到的物理真实往往证实这些与广义相对论方程相结合的新观念的虚幻性和谬误。其中最明显而困惑科学家们数十年的“奇点”问题就是其中之一。宇宙中根本没有具有无穷大密度“奇点”存在的任何迹象。再如，按照 J. Wheeler 等估算出真空的能量密度可高达 $10^{95}g/cm^3$。[9] 这些都是不可思议的。在本文中，作者改采用霍金的黑洞量子辐射理论和公式，**只研究黑洞在其视界半径上的收缩和膨胀，而不研究黑洞的内部状态。**结果，**黑洞只能收缩成为普朗克粒子 m_p，**而在普朗克领域爆炸消失，不可能最后收缩成为“奇点”。作者并由此证实许多新观点和结论比现代故弄玄虚的科学新观念显得更为可信可靠。[Academia Arena, 2010;2(7):64-95] (ISSN 1553-992X). 【关键词】：广义相对论，黑洞；奇点；宇宙黑洞；黑洞的霍金辐射；宇宙起源；宇宙监督原理；普朗克领域；零点能；真空能；宇宙常数；N 维空间；宇宙加速膨胀；多宇宙	Full Text	8
9	**对宇宙加速膨胀的最新解释: 这是由于在宇宙早期所发生的宇宙黑洞间的碰撞所造成的** **张 洞 生** E-mail: *ZhangDS12@hotmail.com* 1957 年毕业于北京航空学院, 即现在的北京航天航空大学 【内容提要】：在 1998年，由美国加里福里亚大学的劳仑斯伯克莱国家实验室的 Saul Perlmutter教授和澳大利亚国立大学的 Brain Schmidt所分别领导的两个小组，通过对 Ia型超新星爆炸的观测，发现了我们宇宙的加速膨胀。他们指出那些遥远的星系正在加速地离开我们。[3] **现在，多数的相关的科学家们认为我们宇宙的加速膨胀是由于宇宙中存在具有排斥力和负能量的神秘的暗能量所造成的。**其中一些科学家们正为获得以后的诺贝尔奖而努力寻找这种暗能量。特别是，我们宇宙诞生于 137亿年前，那时暗能量並没有随宇宙诞生而出来，而暗能量却是在大约 90亿年前蹦出来的。.[3] 究竟什么是暗能量呢？现在还无人知道。中国科技大学物理学教授李淼就幽默地说过：“有多少个暗能量的学者，就能想像出多少种暗能量”。[3] 那么，我们宇宙的加速膨胀就只能用具有排斥力和负能量的神秘的暗能量来解释吗？按照黑洞的原理和其本性，任何一个黑洞的膨胀产生于吞噬外界的能量 物质和与其它黑洞的碰撞，它所吞噬的能量物质愈多，就膨胀得愈快 .[参考后面的公式 (3e)~(3i)]。在本文中，**对我们宇宙的加速膨胀将用一个宇宙黑洞和另一个宇宙黑洞在其早期的碰撞来解释。 虽然本文中的论证可能相对地简单，但比现有的其它各种理论更为合理。** 【关键词】：宇宙黑洞，宇宙的加速膨，暗能量, 有排斥力的暗能量, 有负能的暗能量,胀, 宇宙黑洞的碰撞和合并，多宇宙，超光速的空间膨胀, [Academia Arena, 2010;2(7):96-101] (ISSN 1553-992X).	Full Text	9