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à³/₄×èÍÊÃéÒ§§Ò¹ÇÔ·ÑÂáÅÐ³/₄Ñ²¹Òà«¹à«ÍÃìàªÃÕáÅÐªÕÇÀÒ³/₄ãËéá¢ç§á;Ãè§ à»ç¹.ÕèÁÍÁÃÑ⁰ã¹ÃÐ´Ñ⁰¹Ò¹ÒªÒµÔ

[illegible]

3/4Ñ²¹Ö°Ø▯ÄÖ;Ã·ÖèÀÕ▯ÇÒÃÃÙé▯ÇÒÃÊÒÃÕÃ¶à3/4×èlàÊÃÕÃÊÃéÒ§▯ÇÒÃà¢éÃá¢ç§ã1;ÒÃÇÕ·ÑÃáÃĐ3/4Ñ²¹Ö

§Ò¹ÇÔ¨ÑÂáÅĐ¾Ñ²¹Ò·Õè´Óà¹Ô¹;ÒÃ

1. $\alpha^0 \alpha^1 \alpha^2 \dots \alpha^k$

àã×èì§µé¹á⁰⁰áÅÐËÑÇÇÑ'·'·ØÂÔ¹.ÃÕÂîÊÓËÃÑ⁰µÃÇ·ÇÑ'»ÃÔÁÒ³⁰Õáí

ä°äíà«¹à«ÍÄ¹Ô´¾ÔÁ¾¼Ê;ÃÕ¹¾¾×èÍÇÔàòÃÒÐÈì»ÃÔÁÒ³¹éÓµÒÃã¹àÅ×Í

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 ᵢÒÃµÃÇ¨ÇÑ´ E.coli â´Â´Õáí¹àíä°áíà«¹à«ÍÃì

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 ᵢÒÃÇÔàµÃÒÐĚì»ÃÔÁÒ³ÃÒ»ÃÒ°ĚÑµÃÛ¼×ªâ´Âä°áíà«¹à«ÍÃì·Ò§àµÃÕä¿¿éÒ

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 ᵢÒÃµÃÇ¨ÇÔàµÃÒÐĚìàª×éí Salmonella sp.·ÕèµÇÒÁäÇĚÛ§

2. ᵢÒÃ»ÃÑº»ÃØ§ÍÔàÀÇᵢâ·Ã´ĚÓĚÃÑºᵢÒÃÇÔàµÃÒÐĚì·Ò§àµÃÕä¿¿éÒ

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 ᵢÒÃà¾ÔèÁĚÑ--Ò³ ᵢÒÃµÃÇ¨ÇÑ´ĚÒÃ»ÃÐᵢÍ°¿Õ´ÍÃ´éÇÂµÑÇ·ÓÃÐÃÒÃä¹âµÃäº¹«Õ¹àµÃ×Í°µÒÃì°Í¹Òâ¹·Û»Ěì

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 ᵢÒÃÇÁᵢÑ¹ÇÍ§Í¹ØÀÒµà§Ô¹ áÃÐµÒÃì°Í¹Òâ¹·Û»ĚìÃÐ´Ñº¹Òâ¹àÁµÃ à¾×éÍᵢÒÃµÃÇ¨ÇÑ´àªÒ§àµÃÕä¿¿éÒ

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 àµÃÕä¿¿éÒáÃÐàµÃÕµÑÇàÃè§ÇÍ§âµÃ§ĚĚéÒ§ÃÐ´Ñº¹Òâ¹·Õè»ÃÐᵢÍ°éÇÂ redox mediator áÃÐµÒÃì°Í¹Òâ¹·Û»Ěì à¾×éÍᵢÒÃ»ÃÑº»ÃØ§ÍÔàÀÇᵢâ·Ã´ĚÓĚÃÑºᵢÒÃÇÔàµÃÒÐĚì·Ò§àµÃÕä¿¿éÒ

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 ᵢÒÃĚÖᵢĚÒĚÁ°ÑµÔ·Ò§àµÃÕä¿¿éÒÇÍ§áµ»ä««Ô¹ áÃÐᵢÒÃ»ÃÐÂØᵢµĩªéã¹àªÒ§à«¹à«ÍÃì

3. ᵢÒÃ¾¼Ñ²¹Òà·µ¹ÔµᵢÒÃÇÔàµÃÒÐĚì·Ò§àµÃÕä¿¿éÒ

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 ᵢÒÃÇÔàµÃÒÐĚìàªÒ§ÀÒ¾áÃÐ´Ã¹ĚÒĚµÃĩÇÍ§ᵢÒÃàᵢÔ´ÍÔàÀÇᵢâ·Ã´¿ÒÇÃÔ§·ÕèÍ¹ØÀÒµµÐµÐÃÔĚµĩÇ¹Ò¨¨ØÃÀÒµáÃÐ¹Òâ¹â´Ã S

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 ᵢÒÃÇÔàµÃÒÐĚì»ÃÔÁÒ³¹éÓµÒÃ«ÛâµÃĚáÃÐ¿Õ´ÍÃâ´Âà·µ¹Ôµ Pulsed Electrochemical Detection

°Ø▯ÃÖjÃ

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ÃÈ.´Ã. ÇÕÃÐÈÑj´Òì ÊØÃÐàÃ×Í§ªÑÂ

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´Ã.ÃÔ·.ÃÒ¹ â«ÃÒ«Ñ¹´ÃÑÁ

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´Ã.¾¼Ã¾¼ÔÁÂ ÈÃÕ·Í§▯Ó

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´Ã.¾¼Ã·Ô¾¼Âì â▯éÇ¹ÃÁÔµÃ

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´Ã.ÊØjÑ--Ò á«èàÍÕêÂÇ

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´Ã. ¾¼ÃÃÉÁ³±ì ÃÔ´ÔÃÇ³Ôª

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´Ã. ÃØè§.ÔÇÒ ¾¼ÃÑ§ÊÑ¹µÔjØÂ

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¹Ò§ÊÒÇ´µØ¾¼Ã ¾¼Ô¹·Í§

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¹Ò§ÊÒÇjÃÉ³¾¼Ãª×è¹ÃÑ§ÊÔjØÂ

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¹Ò§ÊÒÇÊÔÃÔÁÒÂÂì §ÒÁª¹Ð

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1ÒÂÇªÔÃÒ ¢ÑÂÇÃ³ì

§Ò¹ºÃÔ¿ÒÃ

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ãĚéªÓ»ÃÖ¿ÉÒ·ÑèÇă»´éÒ¹à«¹à«ÍÃìàªÁÕáÂĐªÕÇÀÒ¾

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àªÃ×èí§Á×ÍÇÔàªÃÒĐĚì·Ò§àªÁÕă¿éÒ

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ÊÑÁÁ¹ÒáÂĐ½Ö¿íºÃÁ

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½Ö¿íºÃÁÂĐÂĐÊÑé¹ (2 ÊÑ»´ÒĚì – 1 à´×¹)

¼¼Â§Ò¹à¼¼Ãá¾¼Ãèã¹ÇÒÃĚÒÃÃĐ´Ñº¹Ò¹ÒªÒµÔ

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