Q-space sampling method and diffusion spectrum imaging method employing the same

提案人：曾文毅教授
單　位：國立臺灣大學　醫療器材與醫學影像研究所
簡　歷：http://abmri.mc.ntu.edu.tw/tw/member.php

市場及需求: 本技術可增進磁振擴散頻譜影像成像術之效率，具有良好之產品或技術之競爭性及市場的可行性，具有潛力應用於磁振擴散頻譜影像成像術相關臨床或廠商的使用。

技術摘要(含成果): 過去傳統的擴散張量影像對於擴散現象的細節無法精細地測量，而較先進的擴散頻譜影像在過去受限於取像點和實際使用的限制而使成像效率降低，因此開發新訊號取樣技術相當關鍵。本發明主要即在提供一能有效增強擴散頻譜影像成像術的新訊號取樣技術，透過演算法自動計算取樣空間與方位，能提供相當高之擴散頻譜影像成像術效率與準確性。

優勢: 本技術可增進現有擴散頻譜影像成像術效率, 具有良好技術競爭性及市場的可行性。

競爭產品: 傳統擴散頻譜影像成像術效率仍相當有限。本技術提供相當高之擴散空間取樣效率，具有良好之技術競爭性及市場的可行性。

專利現況:
證書號：US 7,495,440 B2
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聯絡方式(請不用填):
臺大產學合作總中心
Tel: 02-3366-9945, E-mail: ntuciac@ntu.edu.tw

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PI： Prof. Wen-Yih Isaac Tseng
Institute of Medical Device and Imaging, National Taiwan U.
Experience: http://abmri.mc.ntu.edu.tw/tw/member.php

Market Needs: This sampling method can enhance the efficiency of existing diffusion spectrum imaging. It is a good product with technical competitiveness and the feasibility of the market, having potential to apply to the diffusion spectrum imaging related manufacturers and products.

Our Technology: Diffusion spectrum imaging efficiency continues to improve, but limited by the traditional sampling method. Therefore, the development of new sampling method in diffusion spectrum imaging is critical. The present invention is directed to providing a new q-space sampling technique which can effectively enhance the diffusion spectrum imaging. This technique can provide an automatic optimizing method to sample the signal in q-space with fine coordinates.

Strength: The technology can enhance the efficiency of existing diffusion spectrum imaging sampling method, with a good product, technology competitiveness and the feasibility of the market.

Competing Products: The efficiency of traditional diffusion spectrum imaging sampling method is still quite limited. This technology provides a high performance of diffusion spectrum imaging sampling efficiency, being a good product, technology competitive and market feasibility.

Intellectual Properties:
Patent number: US 7,495,440 B2,
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Contact (do not need to fill out):
Center for Industry-Academia Cooperation, NTU
Tel: 02-3366-9945, E-mail: ntuciac@ntu.edu.tw