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The Distortion-Correction of Transmission-Reconstruction of SGS

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In this paper, the correction of the linear attenuation coefficient was discussed.

The coefficient used for self-absorption correcting of the emission data was reconstructed based on the transmission measurement data. Unlike the basic assumption of reconstruction, the data was measured from cone-like beam instead of the liner beam. The deviation of the coefficient reconstructed has contributed to the deviation of the final result of SGS. The correction technique was developed to reduce the deviation of coefficient by using the Monte Carlo simulation. An iterative process was used to narrow the difference between the coefficient reconstructed and real value by minimizing the difference of the penetration between measurement and simulation.

The technique was used to improve the accuracy of final result of SGS and supported by experimental data.

Country or International Organization

China

Primary author: WANG, Zhongqi (China Institute of Atomic Energy)

Co-authors: ZONG, Bo (State Nuclear Security Technology Center ,China); BAI, Lei (China Institute of Atomic Energy); MIAO, Qiang (China Institute of Atomic Energy); LIU, xiaolin (China Institute of Atomic Energy)

Presenter: WANG, Zhongqi (China Institute of Atomic Energy)

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