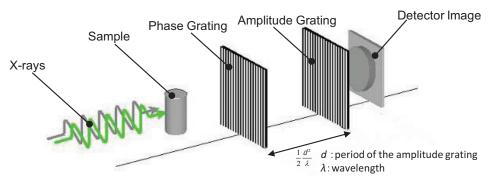
## Cover photograph

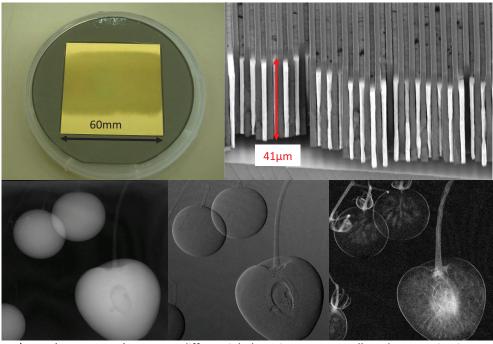
## X-ray Talbot-Lau interferometry Imaging

The cover photograph shows the X-ray grating for Talbot-Lau interferometry and images taken by the system. X-ray Talbot-Lau interferometry system for X-ray phase imaging is shown below. The system was constructed using X-ray grating of a gold pattern 5.3 µm pitch and 40 µm in height. This high aspect ratio X-ray grating is fabricated by X-ray lithography on the BL02 and gold electroforming technique.

Cherry and micro tomato images were obtained in this phase imaging method by Konica Minolta Medical & Graphic, Inc. These results suggest that X-ray Talbot-Lau interferometry would be a promising tool in detecting soft tissues in the human body. This study is supported by the project "Development of Systems and Technology for Advanced Measurement and Analysis" of JST.



X-ray Talbot interferometry



absorption contrast image

differential phase image

small-angle scattering image

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