

地下環境保全や防災のための地下深部構造解析

Deep Underground Structure Analysis for Underground Environment Conservation and Disaster Prevention

キーワード：物理探査工学，応用地質学，情報地質学 / keywords: Geophysical Prospecting, Engineering Geology, Geoinformatics

麻植 久史 助教 博士（工学） / Hisafumi ASAUE Assistant Prof., Dr. Eng.

環境共生工学専攻 広域環境保全工学講座 / Department of Civil and Environmental Engineering

E-mail: asaue@kumamoto-u.ac.jp, URL: <http://www.civil.kumamoto-u.ac.jp/tansa/index.shtml/>

● 比抵抗法による深部地下構造解析

比抵抗法は，地下の電気的な応答を測定し，探査する手法である。この手法のうちの電気探査法と地磁気-地電流探査法による地下構造モデリングに関する研究を行っている。

- 阿蘇火口西側域の地熱貯留層分布
- 熊本平野の水理地質構造解明
- 布田川-日奈久断層系の活動度評価
- 電気探査法による沿岸域断層構造のイメージング

● CO₂地中貯留のための沿岸域物理探査データ統合解析

水域と陸域では同じ物理探査手法の適用が困難であるため，これらの物理探査データを統合に関する研究を行っている。

Deep Underground Structure Analysis by Resistivity Method: Resistivity method is a geophysical prospecting which can survey by measurement of underground electric responses. Electrical and magnetotelluric survey of this method are applied to model deep underground structures.

- Geothermal reservoir distribution in the Western Side of Mt. Aso.
- Clarification of hydrogeology structures in Kumamoto plain
- Evaluation of activity of Futagawa- Hinagu faults zone
- Fault structure imaging by electrical survey in coastal area

Integration of Geophysical Prospecting data for CO₂ Capture and Storage in coastal area:

It is difficult to apply the same geophysical prospecting in water and land area. Therefore, it is necessary for CO₂ Capture and Storage to integrate geophysical prospecting data in coastal area.

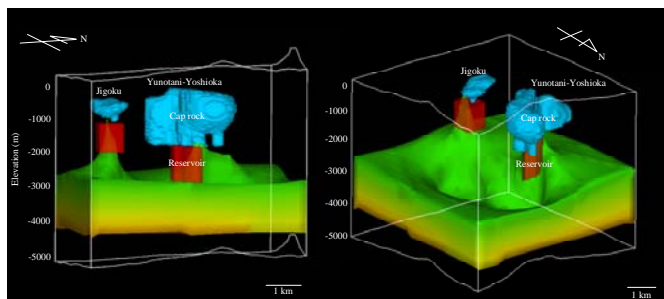


Fig. 1 Characterization of geothermal reservoir

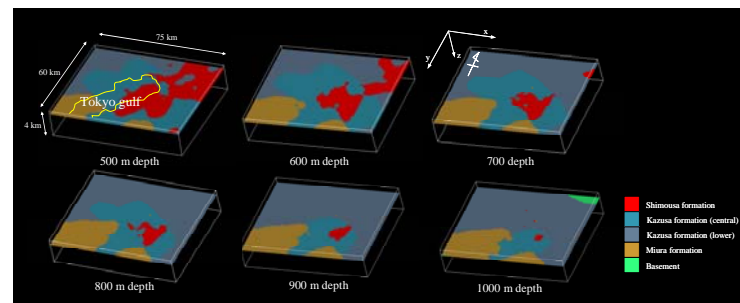


Fig. 2 Stratigraphy model in Tokyo bay area

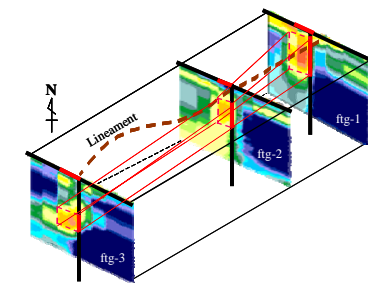


Fig. 3 Active fault

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Hisafumi ASAUE Assistant Prof., Dr. Eng.

Department of Civil and Environmental Engineering

E-mail: asaue@kumamoto-u.ac.jp, URL: <http://www.civil.kumamoto-u.ac.jp/tansa/index.shtml/>

Engineering Geology by Geophysical Prospecting

- 1) Clarification of hydrogeology structures
- 2) fault structure imaging by electrical survey in coastal area
- 3) Clarification of geothermal reservoir distribution
- 4) Evaluation of activity of active faults
- 5) Integration of the geophysical prospecting data

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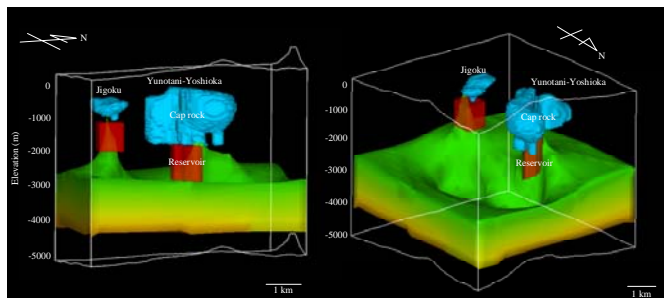


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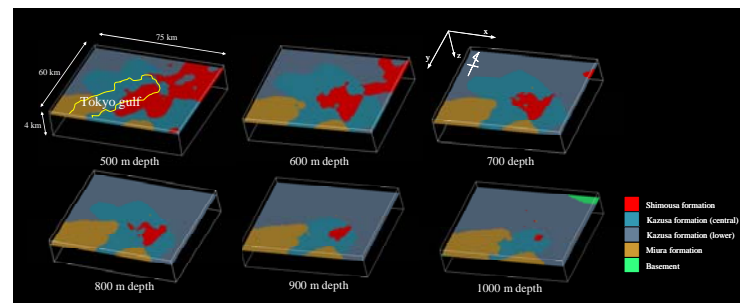


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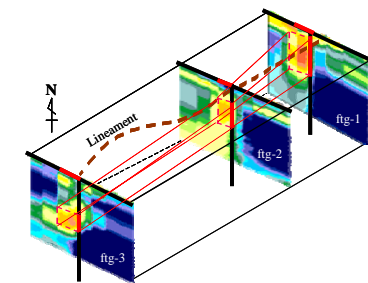


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