

The work of Japan's scientists and engineers has been introduced to their overseas counterparts via the English language. However, there are few opportunities overseas to learn more about Japan's national language, "Nihongo". This page is dedicated to introducing some of its unique features by use of simple phrases and translation.

BASICS

The Japanese alphabet consists of 4 types of characters: 'hiragana' and 'katakana' (26 phonetic symbols); 'romaji' (characters such as , 1, 2, ..from the Roman alphabet); 'kanji' (ideographic/pictorial symbols of Chinese origin).

The first major hurdle to overcome is recognition of the 'kanji' characters of which there seem to be an infinite number but in practice knowledge of about 2000 characters is sufficient to be able understand a Japanese language newspaper.

The following examples illustrate sentence construction and "pictorial" aspects of 'kanji'.

Numbers, one to ten:

一	ICHI	One
二	NI	Two
三	SAN	Three
四	SHI	Four
五	GO	Five
六	ROKU	Six
七	SHICHI	Seven
八	HACHI	Eight
九	KYŪ	Nine
十	JYŪ	Ten

An Enquiry

このカメラはいくらですか？

Kono Kamera wa ikura desu ka?

How much is this camera?

この： kono : this

カメラ： kamera : camera

いくら： ikura : how much

です： desu : to be

Proverbs

郷	に	居	れ	ば
GŌ	NI	I	RE	BA
郷	に	従	え	
GŌ	NI	SHITAGA	E	

"WHEN IN ROME DO AS THE ROMANS DO"

DAYS of the WEEK

げつ	よう	び	Monday
GESTU	YO	BI	GESTU-YO-BI
火	曜	日	Tuesday
KA	YO	BI	KA-YO-BI
水	曜	日	Wednesday
SUI	YO	BI	SUI-YO-BI
木	曜	日	Thursday
MOKU	YO	BI	MOKU-YO-BI
金	曜	日	Friday
KIN	YO	BI	KIN-YO-BI
土	曜	日	Saturday
DO	YO	BI	DO-YO-BI
日	曜	日	Sunday
NICHI	YO	BI	NICHI-YO-BI

Scientific Japanese

Japanese version

第2回国際微小重力実験室と宇宙実験・観測フリーフライヤで得られた実験結果の一部を紹介する。微小重力下での半導体材料実験は、アンブル壁と非接触で成長できるため双晶が発生しないこと、膜厚、結晶組成、微量不純物濃度、電気的・光学的特性の均一性が向上すること等の多くの利点がある。しかし、ボイドの混入等の問題点も残されており、今後、宇宙基地等を利用した多くの研究が必要である。

Romaji version

Dai ni kai kokusai bishō jūryoku jikken shitsu to uchū jikken・kansoku furii furaiya de erareta jikken kekka no ichibu wo shōkai suru. Bishō jūryoku ka de no handōtai zairyō jikken wa, anpuru heki to hisesshoku de seichou dekiru tame sōshō ga hassei shinai koto, maku atsu, kesshō sosei, biryō fujunbutsu nōdo, denkiteki・

kougakuteki tokusei no kin itsusei ga kōjō suru koto nado no ooku no riten ga aru. Shikashi, boido no konnyū nado no mondai ten mo nokosareteori, kongo, uchū kichi nado wo riyō shita ooku no kenkyū ga hitsuyō de aru.

English Translation

We present some of the experimental results obtained by the Second International Microgravity Laboratory and the Space Experiment/Observation Free-Flyer. There are several advantages for performing experiments with semiconductor materials under microgravity. These include the ability to grow crystals without coming into contact with the walls of the growth vessel thus leading to twin-free crystals and improvement in the uniformity of film thickness, composition, impurity concentration, and electrical and optical properties. However, problems such as the incorporation of voids still remain and will require extensive research using facilities such as the space station.

Glossary

微小	bishō	very small
重力	jūryoku	gravity
微小重力	bishō-jūryoku	microgravity
実験	jikken	experiment
実験室	jikken-shitsu	laboratory
実験結果	jikken-kekka	experimental results
半導体	handōtai	semiconductor
材料	zairyō	material
アンブル壁	anpuru-heki	ampoule wall
双晶	sōshō	twinned crystal
結晶	kesshō	crystal
組成	sosei	composition
微量	biryō	very small quantity
不純物	fujunbutsu	impurity
濃度	nōdo	concentration
均一性	kin-itsu-sei	uniformity
ボイド	boido	void