

Science and Technology English 1

Technical Term Meiji University

Sci-Tech-Term.pptx 40 Slides April 16th., 2019

<http://mikami.a.la9.jp/mdc/mdc1.htm>

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数学基礎用語

- 整数 integer
- 浮動小数点 floating point
- 複素数 complex number
- 関数を図に示す graph a function
- 実線 a solid line
- 破線 a broken line
- 点線 a dotted line
- 座標 co-ordinate
- 行列 matrix 行 row 列 column
- 図 figure
- 表 table

四則演算,分数,小数,比例1

四則演算=four operations

加算=addition 減算=subtraction 乗算=multiplication 除算=division

$a+b=c$ a plus b equals c ,a and b is c

$a-b=c$ a minus b equals c ,a subtracted by b is c

$a \times b=c$ a times b equals c,a multiplied by b equals c

$a \div b=c$ a divided by b equals c

$A > B$ A is greater than B

$A < B$ A is less than B

$A \doteq B$ A is approximately equal to B

暗算=mental arithmetic

10個おきに=at intervals of ten

四則演算, 分数, 小数, 比例2

$2+3=5$ The sum of 2 and 3 is 5

$5-3=2$ When you subtract 3 from 5, 2 is left

AにBを掛ける multiply A by B

底辺 \times 高さ $\div 2$ one-half the product of the height and base

Aのn乗根を求める extract n - th root of A

Xについて方程式を解く solve an equation for x

括弧をとる remove the parentheses

代入する substitute, replace

Xを消去する eliminate x

2次以上の項は省略できる the terms higher than second order can be omitted

最小二乗法により求めた式から from the equation obtained by a least squares method

式(1)は次のように変換される equation (1) is transformed as follows

四則演算,分数,小数,比例3

分数=fractions

分子=numerator (dividend), 分母=denominator (divisor)

1/10=one tenth, one over ten

3/10=three tenths (分子が複数のとき分母の序数詞に”s”)

約分,分数を約分する=reduction, reduce a fraction

最小公倍数=the least common multiple

最大公約数=the greatest common divisor

比例=proportion 逆数=reciprocal

3:6=4:8 (three is to six as four is to eight)

小数=decimals

0.3=(zero)point three

0.333=(zero) point three recurring

5.43212121...=five point four three twenty-one recurring

0.31111...=(zero) point three one repeat

小数点第3位まで計算せよ=Calculate down to three places of decimals

括弧 ()=the parenthesis [] ; < > =the bracket { } =the brace

べき (powers), 根 (roots), 対数

$3^2=9$ three squared equals nine

$3^3=27$ three cubed equals twenty-seven

3^N three to the Nth power ,the Nth power of three

10^x ten to the x (three power)

xは指数,3は底=x is exponent, 3 is base

e^x =e to the X ,exponential of x

Xの平方根, $X^{1/2}$ =the square root of X

Xの立方根, $X^{1/3}$ =the cube root of X

XのN乗根=the Nth root of X

10の平方根を少数第2位まで求めよ

Find to the two decimal places the square root of 10.

対数=logarithms

常用対数 common logarithm

自然対数 natural logarithm

底10に対する対数 the logarithm to the base 10

対数グラフにプロットする plot on logarithmic graph paper

$\log X$ =log (of) X ,logarithm X

$\log_2 X$ =log of X to the base two

数列, 極限, 関数

数列=sequences 極限=limit

整級数=power series 無限級数=infinite series

級数展開する expand ... in a series

収束する=converge 発散する=diverge

単調増加[減少]=monotone increasing [decreasing]

上限[下限]=supremum [infimum]

有界(関数)=bounded (function)

近傍=neighborhood

集積点=accumulation point 孤立点
=isolated point

上極限(下極限)=upper limits (lower limit)

$n \rightarrow \infty$ =n approaches infinity, n goes to infinity

$A_1, A_2, A_3 \dots$ =series A_n , a sub n

関数=function 写像=map

連続関数=continuous function

一様連続=uniform continuous 一様収束
=uniform convergence

逆関数=inverse function

正比例=direct ratio 反比例=inverse ratio

微分,積分

微分する differentiate 微分 differentials

dy/dx =derivative of y with respect to x

$\partial y/\partial x$ =partial derivative of y with respect to x,

[round d,y round d,x]

$\partial^2 y/\partial x^2$ =the second derivative of y with respect to x

積分する integrate 積分 integrals

$\int x^2 dx$ =the indefinite integral of x squared with respect to x $\int_a^b f(x) dx$ =the integral from a to b of f of x

$\iint f(x,y) dx dy$ =the double integral of f of x, y

$\oint f(x) dx$ =linear integral on the closed curve C

$\int x^2 dS$ =surface integral on the closed surface S

確率,集合,位相 (topology)

確率順列=permutations

組み合わせ=combinations

$P(n \cdot r)$ =permutations of n things taken r at a time

$C(n \cdot r)$ =the combinations of n things taken r at a time

$5!$ =five factorial

開集合(閉集合)=open set (close)

領域=domain

閉包=closure

距離空間=metric space

幾何1

幾何面積=square measure

体積=solid measure

線分AB=the straight line segment AB

平行線=parallel lines 垂直線=a vertical line

直線ABの交点=the point of intersection of lines A and B

角AOB=the angle AOB

対角=the vertically opposite angle

直角=the right angle

鋭角=the acute angle 鈍角=the obtuse angle

対角線=the diagonal

幾何2

長方形=rectangle

台形=trapezoid 平行四辺形=parallelogram

半径=radius 直径=diameter

弧=arc 接線=tangent 円弧=a segment of a circle

円周=circumference

弧度法=circular method

相似三角形=similar triangles

内積=inner product 外積=cross product

高さに比例して=in proportion to the height

～の裏側=the reverse side of ～

時計回り=clockwise rotation

ベクトル=vector スカラー=scalar

代数

偶数=even number 奇数=odd number

因数分解(する)=factor, (factorize)

to solve a number into factors

展開する=expand 移項する=transpose

公式=formula

二項式=binomial 多項式=polynomial

一次方程式=a linear equation

二次方程式=a quadratic equation

連立方程式=simultaneous equation

消去する=eliminate 代入する=substitute

有理化する=rationalize

係数=coefficient

方程式を変形する=transform an equation

因数分解=resolution into factors

論文に用いる一般的な語句1

記述する=describe, state, deal with, concern

This paper describes ...

In this paper we deal with ...

報告する=report

This paper reports

検討する=consider ,再考する=reconsider

We consider the problem

議論する=discuss, argument

The details are discussed in this paper.

調べる,研究する=study, research, examine, check, work

論文に用いる一般的な語句2

詳しく調べる=investigate, inspect, scrutinize

This report studies the following problems

The purpose of this paper is to investigate

We have conducted research on . . .

分析,解析する=analyze

This report analyzes the behavior of

目的(とする)=aim at, objective

This review aims at providing a recent survey of . . .

One objective of this work was . . .

注目を集める=attract attention

発展,進歩する=progress, an advance, development, proceed

論文に用いる一般的な語句3

焦点をあてる=focus on

概要=outline 問題= matter, problem

動向,傾向=current activity, tendency

仮定,仮説=hypothesis, assumptions

on the hypothesis that・・・

under the above assumptions・・・

assumptions have been made・・・

強調,主張,確信する= note, emphasize, insist on ,assert,

maintain, hold, claim, contend, convince,

It should be noted that ~

It should be emphasized that ~

It is noteworthy that ~

Note that ~

I am convinced that

要約する,まとめる=summarize, summary

This report summarizes the experimental results・・・

論文に用いる一般的な語句4

結果を示す,得る=present ,result
 obtain the same results・・・
 The same results have been achieved.
 reveal results・・・

結論する=conclude, draw a conclusion
 成果=accomplishments, achievements
 発見する=discover
 誤りに気が付く=realize their errors
 解決,解明する= solve, clear, prove
 評価する=evaluate, estimate

応用する,適用する=apply, application
 実用的な=practical
 改善,改良する=improve, improvement
 確認する=This confirms that・・・
 説明する=explain, give proper
 explanation

図・表の説明に用いる語句1

show	Figure 1 shows the relation between A and B. The evolution of resistance is shown in Fig.3.	Illustrate	Figure 3 illustrates the current- voltage curves
give	The results are given in Table 1.	report	Table 1 reports the lithium ion number values.
present	Figure 2 presents the Arrhenius plots of ionic conductivities of the electrolytes.	represent	Stoichiometric phase are represented by the general formula AXB ₃ -XO ₄ .
provide	The table 2 provides a summary of experimental results	be	There are two peaks in the curve B.
indicate	This diagram indicates the position of three phases.	その他に, suggest (示唆する), obtain (得る), reveal (明らかにする) など	

図・表の説明に用いる語句1(和)

show(見せる,示す)

図1はAとBの関係を示す
抵抗の進化が図3に示されている

give(与える)

結果は表1に与えられている

present(与える,示す,提示する)

図2は電解質のイオン伝導度のアレニウスプロットを与える

provide(与える)

表2は実験結果の要約を与える

indicate(示す)

図は3つの相の位置を示す

illustrate(図示する)

図3は電流-電圧曲線を図示する

report(報告する)

表1はリチウムイオン価数を報告する.

represent(表す,示す)

科学量論的な相が一般的な式 AXB_3-XO_4 で表されている

be(ある)

曲線Bには2つのピークがある

その他に,suggest(示唆する),obtain(得る),reveal(明らかにする)など

図・表の説明に用いる語句2

増減,変化を表す

増加(上昇)

increase, rise, enlarge, gain, expand,
broaden, strengthen, thicken, widen,
develop, grow, (go up, boost)

減少(下降)

decrease, reduce, decline, diminish, lose,
fall, fade, lessen, shrink
(abate, go down, come down, dwindle)

急な増加 accelerate, surge, swell

(balloon, buoy, burgeon, climax, skyrocket,
snowball, soar)

急な減少 collapse, crash, drop,

(decelerate, plummet, plunge, sink, skid,
slip, tumble)

ゆっくりした増加 drift up, (inch
ahead, nudge up)

ゆっくりした減少 drift down, slow down

～の増加・減少にともなって

with increasing temperature

with (the) temperature

with an increase in temperature

(注) with the increase of temperature は間
違い

変化(する) change, variation, alteration

During immersion only the first semicircle
changes, but not the second one.

Dynamic alterations of the protective
surface layer occur during polarization.

Evolution at the equilibrium potential of
the electrode impedance as a function of
storage time.

The variation ceased at the same oxygen
exposure.

傾向 tendency

図・表の説明に用いる語句3

程度を表す

わずか

fractionally, marginally, narrowly, slightly, a bit, a little

かなり

considerably, significantly, substantially

ひじょうに

much, drastically, dramatically, by far

わずかな, 無視しうる

inconsiderable, insignificant, negligible, a trace of, faintly, feeble, bare, merely,

際だった

pronounced, conspicuous, remarkable, marked, unusual, predominant, large, high, steep, magnificent, sheerly

速い

rapid, fast, prompt, haste, swift, speedy,

遅い

slow, sluggish, leisurely, gradually, gentle, creeping

十分な, 適度な

to a satisfactory degree, moderate, adequately

程度

the degree of fit of the model to the data is excellent.

図・表の説明に用いる語句4

比例・比較・(不)一致

～に比例して,反比例して

be in (direct) proportion to the height

be proportional to

be in inverse proportion to, vary inversely

～と較べて

in comparison with

compared to

より好ましい

A favor B AはBに好都合である。

High temperature favor more ion transport.

A is favored over B.

一致する

be consistent (inconsistent) with the facts (事実と一致している(いない))

in support of hypothesis (仮定を支持して)

in objection to (に反して)

図・表の説明に用いる語句5

可能性,推量

動詞

seem, appear, look (のようだ)
infer, make an inference (推論する)
conjecture (憶測する), guess (山勘で言う)

助動詞

can be (～の可能性がある,～であり得る)
will be (100%そうであるとき)
may (～であろう),

(注)結論(conclusion)ではmayは絶対用いない。

形容詞等の確実性の度合い

確かだ possible <
plausible < probable < certain

明らかだ clear

apparent < evident < obvious

推量の動詞

～100%be bound to～

be most likely to ～

will

60%～80%be expected to ～

might, could be expected to ～

There is a chance that

A is not likely to be important (Aは重要でないらしい)

It has not been evident.

不明確な・あいまいな

ambiguous (or unclear), obscure

図・表の説明に用いる語句6

原因・理由を表す

A (原因)+動詞+B(結果)

cause, lead to, result in, induce, contribute to, be responsible for,
 evoke, generate, produce
 (occasion, bring about, give rise to, create, engender)

The use of benzene as solvent resulted in better solubility of the developing polymer

B(結果)+動詞語句+A(原因)

be attributed to, be attributable to, be caused by, originate from, result from, arise from, derive from,

The internal stress was considered to arise from volume change.

Figure 1 shows a spectrum originating from the isolated lithium ions.

The films are resulting from the electrode reactions

attribute A to B. 「AをBのせいにする。」

～のために,の故に

due to , owing to, as a result of , as a consequence of ,on account of, because of, thanks to ～

～に関連づける

relate, connect

The center of the semicircle related to charge transfer lies below the real axis, connected with roughness of the electrode surface.

根拠 =ground 因子,要素 =factor

図・表の説明に用いる語句7

影響,効果,反映

influence (他動詞) affect, effect, reflection (反映)

The presence of the acid influenced the whole reaction.

exert retarding influence on ~ ~を遅らせる
exerts a similar influence

The error bar is a reflection of the discrepancy.

証明する

prove (100%正しいとき) > substantiate (かなり正しいとき)

prove to be + 名詞「~だと判る」
prove + 形容詞

It was proved that...

論証する,実証する demonstrate, verify

Only experimental results can verify the hypothesis.

支持する corroborate, in support of ...

The above result corroborates this mechanism.

Evidence in support of this theory has found.

明らかにする reveal, clarify

It becomes clear that

証拠を得る

procure evidence

予測する presuppose

The existence of water was presupposed.

証拠,証明

evidence (無冠詞), a proof, clarification, verification, substantiation, demonstration

図・表の説明に用いる語句8

特徴,分配,配置

「AはBを特徴とする」feature, characterize

A feature B \equiv B characterize A (A is characterized by B)

The polymer features good abrasion resistance.

The rolling hills characterize this part of England.

「AにBを付与する」provide, supply

provide A with B \equiv provide B to A (furnish と同じ用法) equip A with B

(注)equip B to A のようには言わない

「Bの代わりにAを代用する=AがBに取って換わる」

substitute, replace

substitute A(代用品) for B \equiv replace B by A (代用品)

distribute, dispose, enter

Different cations(陽イオン) can simultaneously enter the A and B sites.

図・表の説明に用いる語句9

構成を表す

AはB(構成材料・要素)から構成されている,AはBを含む

A consist of B

The alloy consists of zinc and lithium.

By mixing a solvent consisting of 60% toluene and 40% ethanol.

A comprise B

The alloy comprises zinc and lithium.

A is composed of B (B compose A)

The alloy is composed of zinc and lithium.

A is constituted of B (B constitute A)

The alloy is constituted of zinc and lithium.

その他

The alloy is made up of zinc and lithium.

contain, include, incorporated

図・表の説明に用いる語句10

ともなう

A(従) accompany B(主), be accompanied by A(従)

I ask you (従) to accompany me (主) to the police station.

・・・に関して

With regard to this view

concerning ...

in terms of ...

in respect to ...

に基づいて On the basis of ... based on ...

の観点から in the light of ...

にしたがって

according to, in accordance with

according to the potential of an electrode

if not installed and used in accordance with this manual

許容するallow

The presence of empty anion(陰イオン)sites allows the material to take in extra oxygen atoms.

はたらく,機能する work serve・The model can be discarded

図・表の説明に用いる語句11

conduct

conduct experiment

reach

reach an agreement reach a consensus
reach a conclusion

make

make statement make an attempt make
observations

of + 人 のinform

tell + 人 notify + 人 +
announce + 人+

紹介する= introduce

We would like to introduce

考慮する =be taken into account
I take it consideration

評価する =evaluate evaluation

賛成,同意する =agree

I agree **with** you

I agree **to** your opinion as an outline

Our results are in agreement with the
theory

反対する =object

I have no objections

raise objection to it

実験装置/器具の操作1

装置 equipment (不可算名詞), an apparatus, a device (可算名詞)

測定する, 実験する

All measurements (experiment) were carried out (conducted) under an inert atmosphere.

You can run your experiments. in the experiment

記録する

Infrared spectra were recorded on a Perkin-Elmer IR spectrometer.

制御する

a stand-alone instrument controlled from its front panel.

表示する

The display panel presents continuously updated information on its progress

データを取り込む

Automatic acquisition of data

コンセントを差し込む, つなぐ

The power cord plug must be inserted into a socket outlet provided with the required earth ground contact

Plug the power cord into a source of ac power.

コンセントを抜く

To disconnect the power cord, grasp the grooved grip and pull straight out.

実験装置/器具の操作2

カバーをずらす

Slide the clear plastic cover to the left.

レバーを引く

Pull the FUSE PULL lever out and to the left.
This will dislodge one end of the fuse.

向ける

Orient the card so that the nominal line voltage will be visible.

押し戻す

Then carefully press the card back into its slot until it is seated.

ボタンを(ずっと)押す

Then press the power pushbutton just below the indicator.
The menu screens appear when you repeatedly press the MODE key.
This is a pushbutton toggle switch that changes state each time it is pressed.

実験装置/器具の操作3

印加する

A scan starting at 0V, advancing to 1V, and then returning to 0V will be applied.

一致させる

Turn it so the red dot aligns with the red mark on the connector.

消える

The indicator lights will extinguish and the LCD panel will blank.

効かない,失効している

The front key is disabled during remote-control operation.

有効にする,無効にする

This connector can be made active or inactive either with the front panel controls.

切り替える

You cannot switch between the auto and manual modes during an experiment.

保存される

A battery-powered parameter backup system retains all parameter values when the power is cycled.

実験装置/器具の操作4

反転させる,中止する,再スタートさせる

At any time the user can reverse the scan direction, suspend its progress and then restart it, or stop it entirely.

Resume

進める

Pressing this key steps the full-scale current range to the next lower range available.

内蔵した

The microprocessor incorporated in the instrument allows voltage readings to be transmitted to a host computer.

The speed vs stability trade-off is achieved automatically.

能率を上げる

The large parameter input knob and alphanumeric liquid crystal streamline the process of setting up your experiment.

集める

Approximately 75% of the middle distilled, fraction was collected.

スペースを設ける

it is necessary to allow some free space (minimum 10 cm) at the rear of the instrument so that adequate air circulation can occur.

対策(を講じる) countermeasure

取り除く,分離する

~ A of ~

purge A of B(取り除く) deplete A of B(枯渇させる) deprive A of B(奪う) rid A of B

~ A from ~

remove B from A(取り除く) segregate A from B. 「AをBから分離する」separate

実験装置/器具の操作5

範囲

be on the order of 1000 Ω

They are one order of magnitude lower than those found for the electrodes

The resistance can increase by a factor of 10 in a couple of days.

Values below 5 mF/cm² have often been found.

the diameter ranging from 2 mm to 5mm.

the instrument is on the 10mA range

These reaction occurred in the potential range positive to bulk lithium deposition

show a wide dispersion

When the current exceeds two times the full-scale current range, ...

More detailed discussion of the models is beyond the scope of this communication If the extrapolated line were to intersect exactly halfway down the drop, the correction factor would be 50% of the required value.

方向・距離・間隔

in the direction z perpendicular to the

electrode surface.

at an infinite distance from the target.

The arrow keys move the selection upwards or

downwards

at intervals of ten meters

in the vicinity of

存在する exist, present

in the presence of oxygen

に置かれている be placed be located at

場所をとる take space

位置する hold a position

～の裏側 the reverse side of

数において in the number of red blood cells

正比例=direct ratio 正比例する=be in direct proportion to

反比例=inverse ratio 反比例する=be in inverse proportion to

電気情報技術英語辞典1

- Implementation=実装(回路図から実際の回路にする作業,回路をシリコンチップ上に実現すること)
- Ubiquitous=遍く,いつでもどこでも
- Trade-off=二律背反の経済原理(性能と価格)両立しない事柄について諸条件を勘案して妥協する(両者のバランスを取る)
- throughput=一定時間内に処理される仕事量
- Engine=専用処理回路
- Invention=発明
- Innovation=革新
- Paper =論文
- (C)=copyright(著作権)
- ® =trade mark(商標登録)
- Performance = 性能
- Niche =すきま
- Experiment =実験

電気情報技術英語辞典2

- Latency=処理時間(サイクル)
- Power consumption=電力消費
- Current=(名詞)電流,(形容詞)現在の
- Integrated Circuits=集積回路
- Solution=解決方法
- Cost=原価 Price=販売価格 (Cost + Profit)
- Component=部品
- Family=製品系列
- Revolution =革命 evolution=進化
- Manufacture =製造する
- General - purpose=汎用
- ASIC=Application Specific Integrated Circuits 特定用途向け集積回路
- Embedded=組み込み用の

電気情報技術英語辞典3

- Time-to-market = 製品を市場に出荷するまでの時間,開発期間
- Characteristics = 特性
- Specification = 仕様,スペック
- Feasibility study = 実現可能性を検討する
- Process = 工程,過程
- Approach = 問題解決方法
- de fact standard = デ・ファクト・スタンダード=事実上の標準
,VHS,Windows,TCP/IP通信プロトコルなど⇔デ・ジュリ・スタンダード
(de jure standard=法令上の標準,JIS規格など)

技術英文作成の注意事項

- It's のような短縮表記はしない
- 文頭にアラビア数字は使用しない
- 文頭ではFig.1のような省略形は使用しない
- 文頭はAnd, But, Soで始めない
- 論文のタイトルは冠詞,前置詞,接続詞を除き大文字を用いる

文頭か主語のすぐあとでよく使う語句

additionally	その上
altogether	要するに
apparently	見たところ
seemingly	見たところ
certainly	確かに
consequently	従って
evidently	明らかに
fortunately	幸運にも
generally	一般に
incidentally	ところで
obviously	明らかに
possibly	おそらく
probably	おそらく
presumably	おそらく
surprisingly	驚くことに

especially	特に
(文頭では使わない)	
(～, especially when ～ のように)	
regrettably	残念なことに
similarly	同様に
normally	普通なら
文頭で	
In particular,	特に
Seemingly,	一見したところ
Simultaneously	同時に
Subject to these assumptions,	これら
の仮定にしたがうと,	

接続副詞

accordingly	したがって	As a result	結果として
furthermore	さらに	As a consequence	結果として
hence	ゆえに	As mentioned earlier	前に述べたように
however	しかしながら	As discussed previously	前に議論したように
otherwise	でなければ	At the same time	同時に
therefore	したがって	Not only ..., but also ...	・・・だけでなく, ...もまた
thereby	その結果として	In a similar way	同様に
thus	したがって	On the other hand	一方
then	それから	In contrast to	とは対照的に
also	もまた	while in the opposite case	そうでない場合には
while	一方	By coincidence	偶然に
whereas	であるのに対して, 反して		
nonetheless	それにもかかわらず		
nevertheless	それにもかかわらず		
although	であるけれども		
though	にもかかわらず		
otherwise			

Memo

フォローアップURL (Revised)

<http://mikami.a.la9.jp/meiji/MEIJI.htm>

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