SUMMARY

The non-fermentable sugars of oranges, mandarines, bitter oranges and lemons have been investigated by paper chromatography. In the system n-propanol, ethyl acetate, water (70 : 20 : 10), seven spots have been observed by developing the chromatogram with aniline oxalate. Dextrose, lactose, galactose, arabinose, xylose have been identified by means of co-chromatography.

ΒΙΒΛΙΟΓΡΑΦΙΑ

1. Λ. ΝΙΝΝΗ καὶ Μ. ΝΙΝΝΗ, Μελέτη περὶ τῶν μὴ ζυμωσίμων σακχάρων τῶν σταφυλῶν καὶ τῶν σταφίδων διὰ χρωματογραφίας χάρτου. Πρακτ. Ἀκαδ. Ἀθηνῶν 32 (1957) σελ. 414-421.
2. G. S. SIDDAPA, C. R. RAO, Indian J. Hort., **12** (1955) 122.

ΦΥΣΙΚΗ.— Περὶ τοῦ ἀξιώματος τῆς ἀδρανείας, *ὑπὸ* ***Εὐαγγ. Σταμάτη*** *.

Ἀνεκοινώθη ὑπὸ τοῦ κ. Ἰωάνν. Ξανθάκη.

Α΄. Ὁ Ἰσαὰκ Νεύτων εἰς τὴν πραγματείαν αὐτοῦ Philosophiae naturalis principia mathematica διαλαμβάνει ἐν ἀρχῇ τρία ἀξιώματα, ἐκ τῶν ὁποίων τὸ πρῶτον, τὸ λεγόμενον ἀξίωμα τῆς ἀδρανείας ἔχει ὡς ἑξῆς:

LEX. 1.

Corpus omne perseverare in statu suo quiescendi vel movendi uniformiter in directum, nisi quatenus illud a viribus impressis cogitur statuum suum mutare. [Ἑρμηνεία: Πᾶν σῶμα διατηρεῖ τὴν κατάστασιν ἠρεμίας ἢ εὐθυγράμμου ἰσοταχοῦς κινήσεως, ἐφ' ὅσον δὲν ἐξαναγκάζεται ὑπὸ ἐξωτερικῶν δυνάμεων εἰς μεταβολὴν καταστάσεως].

Εἶναι φανερὸν ὅτι ὁ Νεύτων διαχωρίζει τὸ ἀξίωμα τῆς ἀδρανείας εἰς δύο μέρη. Τὸ πρῶτον μέρος ἀφορᾷ εἰς σώματα εὑρισκόμενα ἐν ἠρεμίᾳ, ἐν ᾧ τὸ δεύτερον ἀφορᾷ εἰς σώματα εὑρισκόμενα ἐν εὐθυγράμμῳ ἰσοταχεῖ κινήσει.

Τινὲς τῶν ἐρευνητῶν τῆς ἱστορίας τῶν φυσικῶν ἐπιστημῶν, θεωροῦντες, πιθανῶς, ὅτι τὸ δεύτερον μέρος τοῦ ἀξιώματος εἶναι τὸ κυριώτερον, παρατηροῦσιν ὅτι τὸ ἀξίωμα τῆς ἀδρανείας ἔχει διατυπωθῇ ὑπὸ τοῦ Ἀριστοτέλους εἰς τὴν πραγματείαν αὐτοῦ τῆς Φυσικῆς ἀκροάσεως, Δ8 215α, ἔνθα ἀναγράφεται τὸ δεύτερον μέρος τοῦ ἀξιώματος, ὅπερ ἔχει ὡς ἑξῆς:

> Ἔτι οὐδεὶς ἂν ἔχοι εἰπεῖν διατὶ κινηθὲν στήσεταί που
> τὶ γὰρ μᾶλλον ἐνταῦθα ἢ ἐνταῦθα; ὥστε ἢ ἠρεμήσει
> ἢ εἰς ἄπειρον ἀνάγκη φέρεσθαι, ἐὰν μή τι ἐμποδίσῃ κρεῖττον.

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* EVANG. STAMATIS, On the principle of inertia.

[Ἑρμηνεία: Προσέτι οὐδεὶς θὰ ἠδύνατο νὰ εἴπῃ διατὶ κινηθὲν σῶμα θὰ σταματήσῃ κάπου· διότι διατὶ νὰ σταματήσῃ ἐδῶ καὶ ὄχι ἐκεῖ; ὥστε ἢ θὰ ἠρεμήσῃ ἢ κατ' ἀνάγκην θὰ κινῆται ἐπ' ἄπειρον, ἐὰν δὲν τὸ ἐμποδίσῃ ἰσχυροτέρα τῆς κινούσης αὐτὸ δύναμις].

Β'. Ἀλλὰ καὶ τὸ πρῶτον μέρος τοῦ ἀξιώματος τὸ συναντῶμεν διατετυπωμένον ὑπὸ τοῦ Ἀριστοτέλους εἰς τὴν πραγματείαν αὐτοῦ Περὶ Οὐρανοῦ Β13 295α, ἔνθα ἀναγράφεται·

Εἰ δὲ μὴ ἔστι μήτε φύσει μήτε βίᾳ (κίνησις τῶν σωμάτων),
ὅλως οὐδὲν κινηθήσεται.

[Ἑρμηνείᾳ: Ἐὰν δὲ δὲν ὑπάρχῃ κίνησις τῶν σωμάτων μήτε ἐκ φύσεως[1] μήτε ἐξ ἐπιδράσεως δυνάμεως, οὐδὲν θὰ εἶναι δυνατὸν νὰ κινηθῇ].

Ὅθεν τὸ ἀξίωμα τῆς ἀδρανείας ἔχει ἐν τῷ συνόλῳ του διατυπωθῆ τὸ πρῶτον ὑπὸ τοῦ Ἀριστοτέλους καὶ πρέπει νὰ φέρηται ὑπὸ τὸ ὄνομα τούτου καὶ οὐχὶ τοῦ Νεύτωνος.

SUMMARY

A. Isaac Newton in his treatise Philosophiae naturalis principia mathematica, states thee principles, the first of which, the so called principle of inertia, is as under:

Every body continues in its state of rest or of uniform motion in a straight line, exept in so far as it is compelled by impressed forces to change that state.

It is obvious that Isaac Newton divides the principle of inertia into two parts. The firts part concerns bodies at rest, while the second concerns bodies in uniform motion in a straight line.

Some researchers of the history of Natural Scienes considering, perhaps, that the second part of the principle is the more important note that the principle of inertia has been stated by Aristotle in his treatise Physics D8 215a, where it is written:

Nor (if it did move) could a reason be assigned why the projectile should ever stop - for why here more than these? It must therfore either not move at all, or continue its movement at infinitum, unless some stronger force impedes it

B. Besides, the first part of the principle is stated by Aristotle im his treatise De Celo B 13 295a as follows:

If there is no motion in the bodies due either to nature or to the action of a force none can move.

Hence the principle of inertia has been first in its whole expressed by Aristotle and must bear his name rather than Newtons.

[1] Ὅπως εἶναι ἡ κίνησις συνεπείᾳ τῆς βαρύτητος.