addiere man die kleineren Zahlen jeder Bruchklasse (466/8/113/225/2/20/50/1=885) und die grösseren Zahlen (682/39/215/322/7/22/125/15=1427), dividiere die grössere Summe durch die kleinere (1427:885=1,61), dann ist J = 1,61 der Asymmetric-Index des Versuchs. Für die Berechnung von exakten Recombinationswerten, besonders für die Berechnung für Coincidence-Werte sind Versuche mit J=1,00-1,15 einwandfrei, J=1,15-1,30 brauchbar, J=1, 30-1, 50 unsicher (kaum brauchbar), J grösser als 1,50 unbrauchbar. Dies ergibt sich praktisch und ist theoretisch begründbar. Falls in einem Crossover-Versuch die Teilklassen nicht einzeln angegeben sind, sollte immer mindestens der Asymmetricindex angeführt werden.

Neuhaus, M. A New Allel of the Gene Yellow in Drosophila melanogaster.

In studying the effect of X-ray quality on the frequency of visible mutations (Bx males treated and mated with XX females), a gray male with yellow bristles was found and crossed to an XX female, resulting in F_1 XX daughters and gray males with yellow bristles, indicating that this character is probably sex-linked. The F_1 males were crossed to Florida females. In F_1 only Bx females appeared, showing the recessive nature of this character. Males having this trait were crossed to two groups of females with free X's. One group carried the gene for yellow skin and yellow bristles and the other group carried the gene for yellow skin and the genes w f. The former gave gray Bx daughters with yellow bristles in F_1. The latter gave only Bx daughters. It may therefore be concluded that the gene for this trait is partly allelomorphic to yellow. From F_1 females of the second cross, F_2 was obtained. This was done for the purpose of localizing the gene for the above character by the crossing-over method. F_2 gave the following results: 0:901; 1:8; 2:642; 3:23; 1-2:1; 2-3:13.

These data show that the new gene is located on the left end of the X-chromosome and is linked with a slight suppressor of crossing-over.

Shapiro, N. Comparison of the frequency of translocation between the 2nd and 3rd chromosomes in spermatozoa containing the X-chromosome and the Y-chromosome.

Our previous findings on translocations occuring under the influence of x-ray treatment have enabled us to collect some data concerning the translocation rate in spermatozoa containing the X-chromosome and those containing the Y-chromosome.

There are reasons to assume that:

1. The configuration and mutual position of chromosomes during treatment has an influence on the character of the translocation process.

2. The configuration and mutual position of chromosomes in nuclei of spermatozoa carrying the X-chromosome may differ from that in spermatozoa carrying the Y-chromosome.