

of the input pulse along with the experimental ratios. Agreement between theory and experiment is improved near  $2\pi$  but some deviation from theory

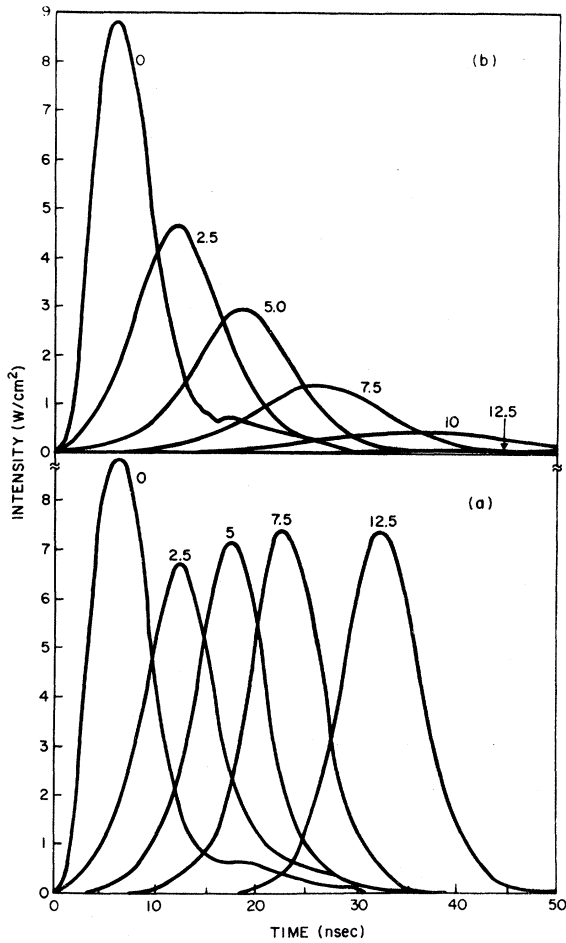


FIG. 4. Evolution of a  $2\pi$  pulse with experimental input pulse shape using computer solutions with (b) and without (a) incoherent decay,  $T_1$  and  $T_2$ . Parameters are

(a)  $T_1 = 10\,000$  nsec,  $T_2 = 20\,000$  nsec.

Area	$\alpha L$	$E_0/E_I$
6.28	0	1.0
6.24	2.5	0.928
6.25	5.0	0.922
6.26	7.5	0.921
6.21	12.5	0.920

(b)  $T_1 = 33.6$  nsec,  $T_2 = 56$  nsec.

Area	$\alpha L$	$E_0/E_I$
6.28	0	1.0
5.89	2.5	0.74
5.52	5.0	0.54
4.85	7.5	0.34
3.14	10.0	0.14
0.12	12.5	0.02

$\alpha L$  is labeled on each pulse.

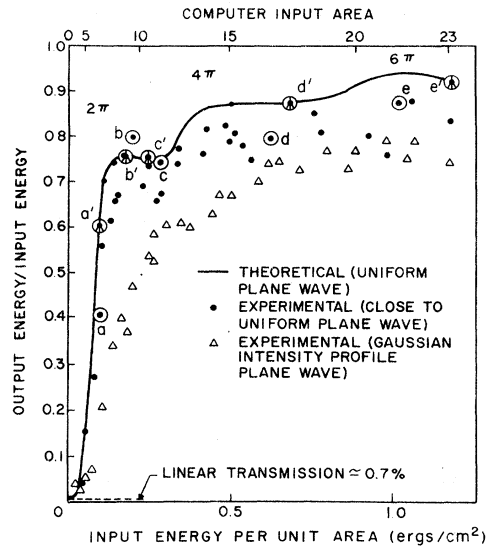


FIG. 13. SIT nonlinear transmission in Rb vapor. Solid curve is a uniform plane-wave computer solution. Solid dots are data taken with  $200\text{-}\mu\text{m}$  output aperture to approximate a uniform plane wave. Triangles are data with no aperture corresponding to a plane wave with Gaussian intensity profile. The pulse shapes for the circled points are shown in Fig. 3.

remains at large pulse areas.

Finally, the fourth and fifth terms of column (a') of Table II should be  $-(\Phi')^2 \mathcal{E}$  and  $-2(\eta^2/c^2) \times \omega \dot{\Phi} \mathcal{E}$  and the line above Eq. (C2) should be " $\hat{x}$  phase by  $\frac{1}{3}\phi(t)$ "<sup>30</sup>. In Sec. IIB the ninth line should refer to Eqs. (19) and (22).

**Deduction of Heavy-Ion X-Ray Production Cross Sections from Thick-Target Yields,** Knud Taubjerg and Peter Sigmund [Phys. Rev. A **5**, 1285 (1972)]. (i) The expansion equation (10) reads

$$[S_n(E) + S_e(E)] \frac{dI(E)}{dE} - \frac{1}{2} W(E) \frac{d^2 I(E)}{dE^2} \pm \dots$$

(ii) In Fig. 2, the following circles indicating  $\text{Kr}^+$ -C cross sections should be added:

$$(E(\text{keV}); \sigma_x(10^{-24} \text{ cm}^2)):$$

$$(60; 7.7); (70; 3.5); (80; 1.3).$$

**Observability of Rearrangement Energies and Relaxation Times,** H. W. Meldner and J. D. Perez [Phys. Rev. A **4**, 1388 (1971)]. We discovered the following misprints: A factor  $i$  is missing in front of the integral in Eq. (2.6a). The right-hand side of Eq. (2.15) should have a plus sign, i.e., read

$$(i/\hbar) \tau \frac{1}{2} [c_n(0) E_n(0) + c_n(\tau) E_n(1)].$$

An equation is missing between Eqs. (3.2) and

(3.3); insert after "then":

$$w = \sum_n w_n.$$

For clarity we also suggest expanding the  $\psi(t)$  in Eq. (2.3) in the *final*  $u$ 's, i.e.,  $u_n^{(\infty)}$ . For this, insert an argument  $\infty$  wherever it is now 0 in Eqs. (2.3)–(2.8) and in the third line after Eq. (2.3) and the eighth line after Eq. (2.66). Also then the first sentence after Eq. (2.5) should read: "We denote the *final* state by 1, i.e.,  $c_n^{(\infty)} = \delta_{n1}$ ." None of the final formulas or conclusions are affected by this change.

Lastly we would like to draw the readers attention to recent work on observability of nuclear rearrangement and choices of single-particle potentials [K. A. Brueckner, H. W. Meldner, and J. D. Perez, Phys. Rev. C (to be published)] which can be added to Ref. 18.

**Role of Electrostriction, Absorption, and the Electrocaloric Effect in the Stimulated Scattering of Light**, P. Y. Key and R. G. Harrison [Phys. Rev. A 5, 1839 (1972)]. In this paper we followed the work of Starunov [V. S. Starunov, Zh. Eksperim. i Teor. Fiz. 57, 1012 (1969) [Sov. Phys. JETP 30, 553 (1970)]; V. S. Starunov and I. L. Fabelinskii, Usp. Fiz. Nauk 98, 441 (1969) [Sov. Phys. Usp. 12, 463 (1970)]] in representing the influence of the electrocaloric effect by a term proportional to  $(\partial\epsilon/\partial T)_p$  in the heat-conductivity equation. In fact this term should be proportional to the much smaller parameter  $(\partial\epsilon/\partial T)_p$  [M. Maier, in Proceedings of the International School of Physics, Erice, 1972 (unpublished); I. P. Batra, R. H. Enns, and D. Pohl, Phys. Status Solidi b48, 11 (1971)]. Using this expression our results become identical to those of Rother [W. Rother, Z. Naturforsch. 25a, 1120 (1970)] for media in which  $(\partial\epsilon/\partial T)_p \ll \beta Y$ . In this analysis SRS gain in non-absorbing media arises almost entirely from the electrostrictive term in the hydrodynamic equation. Also, the factor of  $(2-\gamma)$  in the SBS gain,

which suggests anti-Stokes stimulated scattering near the critical point, no longer arises.

**Analytic Study of Pulse Chirping in Self-Induced Transparency**, Ljubomir Matulic and Joseph H. Eberly [Phys. Rev. A 6, 822 (1972)]. Due to an error in the publication process, an incompletely proof-corrected version of this paper was printed. The reprints of this paper, to be available from the authors, will be based on the version which was intended for publication. In addition to small errors of spelling, notation, etc., these points are corrected in the reprints:

(1) In Eq. (3.19) the last term on the right-hand side should be multiplied by the spectral-response function  $F(\gamma)$ .

(2) Following Eq. (3.10), and in the first paragraph of Sec. III.C, and following Eq. (5.18), the sequence of zeros should be written  $S_1 < S_2 < S_3$  instead of  $S_1 < S_2, S_3$ .

(3) The absolute value signs on  $k^2$  and  $l^2$  in Eq. (3.15) and above it should be removed.

(4) Following Eq. (3.16), the following phrase should be removed: "one of which corresponds to a positive and the other to a negative value  $k^2$ ."

(5) The last four sentences in Sec. III.C should be omitted.

(6) The second from last paragraph of Sec. VI should contain the sentence: "Our interpretation, as well as our single solution (3.16), covers the range of possible solutions, within our approximation, including the pair of apparently different solutions of Dialetis."

(7) Reference 15 should include the additional sentence: "See also M. D. Crisp, Phys. Rev. A 1, 1604 (1970)."

(8) The relation between our study of chirping in multi-pulse trains, and the study by Marth and Eberly (see Ref. 12) of chirping in single pulses, is clarified.